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SCHEMATIC STRUCTURE AND THE MODULATION OF PROPOSITIONS
IN ECONOMICS FORECASTING TEXT

Volume One

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Doctor of Philosophy

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The University of Aston in Birmingham

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Ph.D

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Thesis Summary

Working within the framework of the branch of Linguistics known as **discourse analysis**, and more specifically within the current approach of **genre analysis**, this thesis presents an analysis of the English of economic forecasting. The language of economic forecasting is highly specialised and follows certain conventions of structure and style. This research project identifies these characteristics and explains them in terms of their communicative function.

The work is based on a corpus of texts published in economic reports and surveys by major corporate bodies. These documents are targeted at an international expert readership familiar with this genre.

The data is analysed at two broad levels: firstly, the macro-level of text structure which is described in terms of **schema-theory**, a currently influential model of analysis, and, secondly, the micro-level of authors' strategies for **modulating** the predictions which form the key move in the forecasting schema.

The thesis aims to contribute to the newly developing field of genre analysis in a number of ways: firstly, by a coverage of a hitherto neglected but intrinsically interesting and important genre (Economic Forecasting); secondly, by testing the applicability of existing models of analysis at the level of schematic structure and proposing a genre-specific model; thirdly by offering insights into the nature of modulation of propositions which is often broadly classified as "hedging" or "modality", and which has been recently described as "an area for prolonged fieldwork". This phenomenon is shown to be a key feature of this particular genre.

It is suggested that this thesis, in addition to its contribution to the theory of genre analysis, provides a useful basis for work by teachers of English for Economics, an important area of English for Specific Purposes.

schematic structure
condition
hedging
attribution
economic forecasting

This work is dedicated to:

- my wife **Makwikila Nkengi**, my sons **Mankula** and **Nzala**,
for their sustained devotion;
- my parents **Pindi Senior** and **Panda** for their patience;
- my sisters **Makiese** and **Luzingu**, my brothers **Mazonzika**,
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List of Contents

	Page
Title page	1
Thesis summary	2
Dedication	3
Acknowledgements	4
List of Contents	5
List of Tables and Charts	12
 Chapter One: Introduction	 13
1.1 Aims of the Research Project	13
1.2 Background and Significance of the Work	13
1.3 The corpus	21
1.3.1 Sources	21
1.3.1.1 Source I : Abecor	21
1.3.1.2 Source II: Barclays Bank	22
1.3.1.3 Source III: EIU	23
1.3.1.4 Source IV : OECD	23
1.3.2 Data Base	24
1.3.2.1 The Abecor Country Reports	24
1.3.2.2 Barclays surveys	25
1.3.2.3 The OECD Economic Outlook	27
1.3.2.4 The EIU's World Commodity Outlook	30
1.3.3 Extracted texts	31
1.4 Areas of exclusion	34
1.5 Outline of the thesis	35
1.6 Note to Chapter One	38
 Chapter Two: Review of the Relevant Literature	 39
2.1 Overview	39
2.2 A Brief Survey of the Schema-Theory	40
2.2.1 Schema as Social Structure	42
2.2.2 Schema as Cognitive Structure	43

		Page
2.2.3	Schema as Text Structure	44
2.3	A Survey of Schema-using Models in ESP	48
2.3.1	Davies et al's Topic-types	48
2.3.1.1	Description of the model	48
2.3.1.2	Critique of the model	51
2.3.1.3	Applying the model to Economics forecasting texts	54
2.3.1.3.1	An attempt at fitting the text "INFLATION" into the SOCIAL STRUCTURE Frame	55
2.3.1.3.2	An attempt at fitting the text "INFLATION" into the STATE/SITUATION Frame	57
2.3.1.4	Observations	59
2.3.2	Zuck and Zuck's Forecasting Script	61
2.3.2.1	Description of the model	61
2.3.2.2	Critique of the model	63
2.3.2.3	Applying the Model to Economics forecasting texts	68
2.3.2.4	Observations	69
2.3.3	Swales: Schematic Structure of Introductions to Academic Journal Articles	71
2.3.3.1	Description of the model	71
2.3.3.2	Critique of the model	73
2.3.3.3	Applying the model to Introductions of Economics forecasting texts	75
2.3.3.4	Observations	78
2.4	Some Previous Work on Hedging, Condition and Attribution	79
2.4.1	Lakoff's position on Hedging and its derivatives	79
2.4.2	Critique of Lakoff's Position	83
2.4.3	Condition as an aspect of Hedging	85
2.4.4	Attribution as an aspect	88

	of Hedging	Page
2.5	Notes to chapter two	90
Chapter Three:	Issues of Research Methodology	91
3.1	Overview	91
3.2	Criteria for Collecting the data	91
3.2.1	Authenticity	92
3.2.2	Reputation	94
3.2.3	Accessibility	96
3.2.4	Variation	97
3.3.	Criteria for selecting the corpus	98
3.3.1	Universality	98
3.3.2	Text Length	99
3.3.3	Representativity	100
3.4	Procedure for analysing the corpus	101
3.5	Use of Specialist Informants	107
3.5.1	Stages in SI Consultation	113
3.5.1.1	Exploratory Stage	113
3.5.1.2	Validatory Stage	116
3.5.2	Selecting an SI in a professional setting	119
3.6	Note to chapter three	121
Chapter Four:	Schematic Structure of Economics forecasting text	122
4.1	Overview	122
4.2	An Outline of patterns of the schematic structure of Economics forecasting text	123
4.3	A model for analysis	140
4.4	Description of the categories of the schema	143

		Page
4.4.1	Categories of the Reporting Episode	143
4.4.1.1	Normally required moves	143
4.4.1.1.1	Describing Previous Trends	143
4.4.1.1.2	Giving Reasons for Previous Trends	154
4.4.1.2	Optional move	161
4.4.1.2.1	Revising Previous Forecast	161
4.4.2	Categories of the Predicting Episode	165
4.4.2.1	Normally required moves	165
4.4.2.1.1	Setting the Basis for Predicting	165
4.4.2.1.2	Predicting Future Trends	179
4.4.2.2	Optional move	190
4.4.2.2.1	Assessing Risks to the Prediction	190
4.5	Ordering of the categories of the Schema	191
4.5.1	Canonical Order	192
4.5.2	Embedding	199
4.5.3	Juxtaposition	203
4.6	Notes to Chapter four	210
Chapter Five:	Modulating prediction by specifying conditions	211
5.1	Overview	211
5.2	Functional Types of Conditional Predictions	213
5.2.1	Hypothetical Conditional Predictions	214
5.2.1.1	Use	214
5.2.1.2	Context of occurrence	221
5.2.1.3	Markers of the conditional clause	226
5.2.1.3.1	The Unmarked Conditional	226

		Page
5.2.1.3.1.1	Forms of the unmarked conditional	230
5.2.1.3.2	Hidden Conditionals	235
5.2.1.3.2.1	The lexeme ASSUME	236
5.2.1.3.2.2	The lexeme ANY	239
5.2.2	Disclaiming Conditional Predictions	240
5.2.2.1	Use	240
5.2.2.2	Context of occurrence	243
5.2.2.3	Marker of the conditional clause	246
5.2.2.3.1	Forms of the Absolute Conditional	248
5.2.3	Reinforcing Conditional Predictions	253
5.2.3.1	Use	253
5.2.3.2	Context of occurrence	257
5.2.3.3	Marker of the conditional clause	261
5.2.3.3.1	Forms of the Reinforcing Conditional	263
5.2.4	Revoking Conditional Predictions	267
5.2.4.1	Use	267
5.2.4.2	Context of occurrence	269
5.2.4.3	Marker of the conditional clause	273
5.2.4.3.1	Forms of the Antithetical Conditional	275
5.3	Structure of the conditional clause	277
5.4	Significance of the position of the conditional clause	284
5.4.1	Pre-nuclear Conditional	285

		Page
	clauses	
5.4.2	Post-nuclear Conditional clauses	288
5.5	Notes to chapter five	291
Chapter Six:	Modulating prediction by Hedging	292
6.1	Overview	292
6.2	Purpose of the chapter	295
6.3	Areas of exclusion	295
6.4	Strategies of Hedging	297
6.4.1	Rating the chances of fulfilment of prediction	300
6.4.1.1	Linguistic realisation	310
6.4.1.1.1	Intra-propositional Hedges	312
6.4.1.1.2	Peri-propositional Hedges	316
6.4.1.1.2.1	It-construction	316
6.4.1.1.2.2	There-construction	318
6.4.1.1.2.3	One-construction	319
6.4.2	Proposition reformulators	321
6.4.3	Judgement assertion	325
6.5	Note to chapter six	328
Chapter Seven:	Modulating prediction by Attribution	329
7.1	Overview	329
7.2	Objective of the chapter	329
7.3	Categories of Attributed Predictions	331
7.3.1	Author-endorsed Attributed Predictions	332
7.3.2	Rhetorical-Support Attributed Predictions	336
7.3.3	Author-detached Attributed Predictions	344

	Page
7.4 Linguistic realisation	351
7.4.1 Criteria for Recognition	353
7.4.2 Nature of specific source	354
7.4.3 Characteristic lexical items	361
7.4.4 Syntactic patterns	365
Chapter eight: Conclusion	369
8.1 Summary of the findings of the Research	369
8.2 Implications for Genre-analysis	374
8.3 Suggestions for future work	379
List of References	383
Volume II: Appendices	
Title Page	1
List of Contents	2
Appendix 1: Corpus Details	3
Appendix 2: Analysed Texts	6
Appendix 3: Acronyms found in the corpus	131
Appendix 4: Edited transcripts of a recorded structured interview with Specialist Informants	133
Appendix 5: Questionnaire to and answers from Specialist and other Informants	153
Appendix 6: Details of the realisation patterns of the schematic structure in the analysed texts	160
Appendix 7: Sample raw data	169

List of Tables and Charts		Page
Table 1:	Analysed corpus	32
Table 2:	Matrix for Topic Types in non-narrative text	50
Table 3:	An outline of Zuck and Zuck's Forecasting Script	62
Table 4:	Feature Matrix of Data-base Sections	99
Table 5:	Variation in the forecast period across the sources	128
Table 6:	Variation in the ordering of the schematic categories	208
Table 7:	Number of texts illustrating the realisation forms of the schematic structure	209
Table 8:	Major syntactic structures of the conditional clause	283
Table 9:	Types of prediction modulation by condition specification and characteristic markers of conditional clauses	290
Table 10:	Distribution of Attributed Predictions	360
Table 11:	Distribution of Attributed Predictions by syntactic patterns	367
Chart 1:	Outline of Introduction to the Research Article Schema	71
Chart 2:	A Schema for Forecasting in Economics text	143
Chart 3:	Hedging expressions of rating the likelihood of Prediction fulfilment	306
Chart 4:	Hedging expressions of Doubt	307

Chapter One: Introduction

1.1 Aims of the Research Project

This research project is a discourse analysis of the language of Economic Forecasting in English, the purpose of which is to study characteristic conventions of structure and style pertaining to this genre. The analysis is based on a corpus of texts, published in economic reports and surveys by corporate bodies, in which **forecasting** is a major linguistic aspect.

It aims at exploring the schematic structure of such texts, delineating the ordering of the categories of this schema and at identifying various strategies employed by report writers to modulate the force of their predictions.

1.2 Background and Significance of the Work

Research and teaching in English for Specific Purposes (ESP) are increasingly compartmentalised. Many practitioners in this field identify themselves with so many micro-specialisations that classifications of ESP types into Academic and Occupational Englishes attempted by Strevens (1977), Johns (1980), Robinson (1980), Kennedy and Bolitho (1984), Hutchinson and Waters (1987) to mention only a few, although extensive may still fall short of a full account.

In spite of overlaps between such categorisations and differences within them, compartmentalisation is

justified, reflecting both the twentieth century's characteristic tendency towards professionalism and specialisation (Williams at al, 1984:1) but also the variety of learners with whom ESP practitioners have to cope and for whom appropriate learning strategies and teaching methodologies have to be devised according to their particular language needs.

My experience as an ESP teacher is confined to teaching English to undergraduate students of Economics at the University of Kinshasa in Zaire. Therefore, English for Economics is the variety of English for Specific Purposes in which I have cultivated interest and familiarity as part of the pedagogic experience.

During my teaching activities, my students constantly expressed the wish for their teacher to select real-life reading materials that could more closely match their needs as economists in training. Their claim was a reaction to an English course that was largely based on the book A Rapid Course in English for Students of Economics by McArthur (1973) which they found too elementary both in language and in Economics content levels. Not only does the textbook consist of composed and simplified texts but also the exercises it exploits are generally sentence-based. Swekila (1981), in a survey carried out with the same students at the same period, reports the same wish of the students and recommends that English courses for Zairean economics

students should incorporate extracts from annual reports and other economic reports that deal with Zaire in order to raise their motivation for learning English.

The problem of selecting real-life materials for students of Economics is not a local issue. Jordan (1984), for example, reports the dissatisfaction of postgraduate students of Economics at the University of Manchester with an English course partly based on McArthur's book and, after conducting a needs analysis, proposed the inclusion of reading materials extracted from Economics journals and textbooks. In a similar, previous study, Wall (1981:85) found it necessary for a pre-sessional English course intended for Lancaster University postgraduate students of Economics, to recommend the use of Economics-related articles from newspapers and magazines such as the Sunday Times, the Financial Times or The Economist for reading as a preparation for specific writing tasks.

Nevertheless, research into the language of Economics is growing and has so far dealt with various features of text. At the level of lexis for example, Bramki and Williams (1984) analysed specialist vocabulary in Economics texts explained in context and proposed a methodology for teaching students how to recognise such contextual information. At the syntactic level, Mead and Henderson (1983) have found that the single conditional particle IF, which is so recurrent in Economics texts, can have several meanings or functions.

They also stress that no precise correlation can be attempted between economic concepts and their verbal expressions and exhort teachers of English for Economics as well as teachers of Economics to recognise this lack of correlation as a source of difficulty for their students. At the discourse structure level on the other hand, Tadros (1981, 1984, 1985) has investigated the discourse structure of Economics texts by using the notion of linguistic prediction whereby certain signals used by a writer predict the occurrence of definite linguistic events. She observes several categories of prediction and contends that the clues marking these categories of prediction would, if made use of, "enable students to proceed ahead of the text" (1984:163).

Another feature of text, which is of equal importance to lexis, syntax and structure and which has received some attention in English for Economics, is the use of "non-verbal information" (Widdowson, 1978).

Caballero-Hormechea (1982) has studied the interaction between verbal and non-verbal information in Economics textbooks and argues that the inability to interpret graphs, which are so common in Economics textbooks, lies in problems of comprehension of three intersecting parts of verbal and non-verbal information: the Art Work or the Graph itself, the Gloss or annotations accompanying the graph, and the Text Reference, that part of the main text in which the

writer refers to the graph. At the same time, Hussein (1985) has found that graphs have functional roles in text.

However, it may be observed from the main drift of research into the English language of Economics that the enquiries are restricted to the language of texts derived from Economics textbooks. Little attention has been given to the language of texts from other sources required by economists in training or in practical life, viz academic and professional journals, newspapers and magazines, reports and surveys etc. One exception is the recent monograph by Henderson and Hewings (1986), which in many respects validates the methods of lexical familiarisation described by Bramki and Williams (op.cit) against a corpus that partly includes texts from sources other than economics textbooks.

One might argue that the possible paucity of a professional economist clientele for the teacher of English for Economics, the involvement of the latter mostly at undergraduate university level and the likelihood that professional texts will be opaque to both ESP teacher and undergraduate students of Economics, may be some of the reasons contributing to this state of affairs. Indeed, Tadros (1984:52) for example, does justify her selection of data saying that the textbook she analysed was one "in current use by preliminary year students in the Faculty of Economics and Social Studies in the University of Khartoum". Also,

she admits that her choice of didactic text was dictated by the fact that such a text has a transparent structure intentionally given to it by its writer so that difficulties in understanding the message could be alleviated. Swales (1987:42) echoes this concern by observing that undergraduates comprise the priority target population in the field of English for Academic Purposes.

The situation is similar with regard to the ESP textbook market. Textbooks of English for Economics currently in use are designed on the basis of authentic texts extracted from textbooks of Economics (see Wyatt, 1978; Harvey & Sindermann, 1979 and 1981 etc.), from texts composed by an economist textbook writer (Jordan and Nixon, 1986) or from Economics-related magazines (see Pilbeam et al, 1982). None appear to have been based on text extracted from professional sources.

My wish in undertaking this project is to explore the language of these apparently uncultivated corners of English for Economics. In doing so, I wish to restrict my effort to professional text taken from economic reports and surveys in which forecasting is a major linguistic aspect. By professional text, I mean a text designed for communicative purpose amongst peers in which the writer assumes some knowledge of the subject matter and of the writing conventions on the part of the reader.

In choosing such texts, I wish to contribute to the understanding of various models of language use representing authentic situations in which practising Economists and economists in training are likely to find themselves in real life.

My enquiry, therefore, is essentially linguistic and is limited to the following areas.

The first area is the analysis of the schematic structure of texts drawn from these professional sources of economic forecasting. This linguistic analysis aims not only to describe the overall structure of such texts but also to delineate the sequencing of arguments that lead authors to make their predictions.

The reason for focusing first on the schematic structure of these texts is that I subscribe to the view held by Trimble (1985), Bley-Vroman and Selinker (1980), Swales (1981a) and McDonough (1984:56) that the schematic structure is the variable which constrains lexical and grammatical choices in a text and within which it is possible to observe correlations between **form** and **function**. The correlations are not taken here as stereotypic patterns to be memorised by learners as formulae, which Widdowson (1983:102) cautions against, but instead as starting points in developing the learners' ability to react to the communicative conventions associated with particular areas of language use.

The theoretical construct on which the analysis of

the schematic structure is based is that of **schema** and the partly related and partly conflicting notions of **FRAME** and **SCRIPT**.

Chapter Two, which is devoted to the review of relevant literature, includes a brief discussion of what this theory entails, and how it has been applied by ESP practitioners, as well as the relevance of these applications to this project.

The second area of interest to this project is to study the manner in which economic report writers modify their commitment to the predictions they make, which are central to these texts. This is an area that overlaps partially with studies in Pragmatics relating to expressions of politeness and vagueness (Channell, 1983) or to the strength of claims (Geis, 1982) and is indeed an aspect of **MODALITY** in English, which has been recently described as an area for "prolonged fieldwork" (Stubbs: 1986).

The theoretical position on which the discussion is grounded stems from George Lakoff's notion of **HEDGES** or "fuzziness in speech" (Lakoff, 1973). This position is surveyed briefly in Chapter Two, and includes both criticism and developments of Lakoff's ideas in the ESP-oriented Applied Discourse Analysis literature, especially as they are broadened in the thesis to encompass not only **Hedging** in its narrow sense, but also **Condition** and **Attribution**. These three linguistic

concepts are found to be very much at work in the corpus analysed, in so far as economic forecasters resort to them as a strategy for modulating their predictions.

Therefore, although apparently divergent, both the schema theory and Lakoff's interpretation of the notion of fuzziness have found a place in this thesis in that the analysis of the schematic structure provides the discourse context in which the pragmatics of forecasting can be examined.

1.3 The Corpus

Being a corpus-based study, the findings of this thesis stem from a linguistic analysis of a substantial amount of written text. For the purposes of presenting this body of texts to the reader, a distinction is drawn between the sources of analysed materials, the data base and the extracted texts.

1.3.1 Sources

The sources of the corpus here refer to the institutions which published the economic reports and surveys considered in the analysis. Four sources are involved:

1.3.1.1. Source I: ABECOR

Abecor is an abbreviation for the Association of European Banks, which consists of a number of leading European banks, including the Barclays Group. Each of

these banks has several representatives throughout the non-communist world.

The association seeks to "improve the services that each individual member is able to offer to its customers by developing banking and financial objectives on the basis of mutual co-operation". (Abecor Country report: Angola, March 1986,p.1). It publishes a number of joint reports on various aspects of the economies of the numerous countries in which the bank members are represented.

One regular publication produced by this group is of special interest to this project. It is the Abecor Country Report on "Interest Rates:Developments and Prospects" (See section 1.3.2.1).

1.3.1.2 Source II: Barclays Bank

Through its London-based Economics Department, this banking corporation, represented in 70 countries spanning six continents, produces a wide range of reports, surveys and reviews for in-company as well as for public consumption. These publications are related principally to matters of economic and financial interest.

This source is of prime importance to this project since not only has it provided most of the data for analysis but also, as acknowledged in Chapter Three, some members of staff of Barclays Bank's Economics

Department have been particularly helpful in making themselves available for consultation when need arose. Data gathered from this source is referred to as **Barclays surveys**.

1.3.1.3 Source III: EIU

A subsidiary of The Economist Newspaper Ltd, the Economist Intelligence Unit (EIU) produces specialist economic and business publications and provides multi-client services for clients throughout the world. It "provides a full range of economic, marketing research and consultancy services, using the techniques and methods appropriate to each individual assignment" (see back cover of World Commodity Outlook 1983, December 1982). These research and consultancy services include, amongst several others, **Economic Forecasting**.

A regular publication they produce in this respect is the annual World Commodity Outlook: Industrial Raw Materials, an issue of which will be of particular interest in the present analysis.

1.3.1.4 Source IV: OECD

The Paris-based Organisation for Economic Cooperation and Development is an intergovernmental institution involving 15 Western countries in addition to Australia and Japan. It specialises in economic matters with a view to counselling government members on policy. One of their numerous publications, is the OECD

Economic Outlook, of which Volume 5 of July 1984 has been selected for study in the present analysis.

1.3.2 Data Base

The data base in this project refers to the set of publications from which texts for analysis have been extracted. It consists of:

- 1) Five issues of Country Reports on Interest Rates: Developments and Prospects published by Abecor but distributed by Barclays from May 1983 to October 1984;
- 2) Twelve economic, commodity and industrial surveys published by Barclays Bank PLC from May 1983 to December 1984;
- 3) One issue of World Commodity Outlook, published by the EIU in December 1982 and containing forecasts for 1983;
- 4) One issue of the OECD Economic Outlook, vol. 35 published in July 1984 by the OECD and containing economic forecasts for 1984 and 1985.

Here is a brief description of each publication.

1.3.2.1 The Abecor Country Reports

The Abecor Country Reports on Interest Rates always appear in a handy two page single sheet handout. Each issue is divided into sections devoted to the trends in short - and long-term interest rates in the following areas: the Eurodollar Markets (USA), Belgium, France, Germany, Italy, the Netherlands, the United Kingdom and occasionally Austria.

The sections are followed by a tabular summary,

sketching recent trends and prospects for interest rates in each country. For the purposes of the present analysis, each section is taken to be an independent text. All 36 texts contained in the five reports have been considered for analysis. The summaries on the other hand have been ignored because of their lack of sufficient verbal information.

1.3.2.2. Barclays surveys

This is a general term used here to refer to a variety of surveys published by the Barclays Bank's Economics Department which cover many sectors of the international and British economies.

The sample considered for analysis consists of six issues of International and UK-Economic surveys, three issues of Commodity surveys which encompass metals and foodstuffs, and three issues of Industrial surveys.

Barclays surveys appear on a four sided double sheet. Most surveys, especially the International and UK-Economic ones are divided into three main parts:

- The first is a short summary, also termed Key Features in International Economic surveys which serves a quick referential purpose.

(1*)

- The second part which follows the summary is either an overview of the economic sector covered in the survey (e.g the Metals market) or a long discussion on a topic of current economic or financial interest, such as

Recovery at Last. This title echoes the general belief held around the 1983 American primary presidential election campaign that America was leading the world economy out of recession.

It may be the case that the use of such a title indicates that these publications are attempting not only to forecast but also, in the process, to influence economic trends. Specialist Informant Cathy George (See Chapter three, section 3.5) recognizes that such titles reflect the News Headlines at a particular time.

"They are talking about what is important to the time and it picks up the particular issues that perhaps are in the mind of everybody then".

(Vol.II, p.143)

This particular part of the survey is referred to here as the **Overview Article**.

- The third part is the **Sector Review** in which, as the name suggests, each item within the market or economic sector under survey is examined in detail.

For the purpose of the present analysis, each section devoted to a particular item within the Sector review, as well as each preface and summary, is treated as an independent text in its own right. The reason for this decision is that, on conceptual grounds, the sections deal with different economic or market items which relate to possibly quite different topics. On textual grounds, it may be argued that though an editorial summary is found at the threshold of most surveys, the subsequent sections do not appear to have a

common beginning or introduction, nor do they appear to have a common ending or conclusion. Hence the decision to assign an equal value to each section, that of TEXT.

However, not all the texts found in this sample have been considered for analysis for the reasons expounded in section 1.3.3 of this chapter.

Thirty six texts in aggregate have been extracted instead, consisting of: fifteen texts from Commodity surveys, eight from International Economic surveys, six from UK-Economic surveys and seven from Industrial surveys.

1.3.2.3 The OECD Economic Outlook

There is no better way of describing this OECD's biannual publication than to quote the authors themselves.

"The OECD Economic outlook provides a periodic assessment of economic trends and prospects in OECD countries, developments which largely determine the course of the world economy... Each number contains an overall analysis of the latest economic trends and short-term forecasts... The journal also occasionally contains special studies by members of the Department or other parts of the organisation designed to assist the interpretation of economic trends. Reference statistics are included. This survey is the joint work of members of the Secretariat Department of Economics and Statistics" (cover of the OECD Economic Outlook).

The issue sampled for the present analysis starts with an introductory article which overviews the main

drift of economy in the OECD areas, followed by articles or chapters devoted to particular components of economy such as Fiscal policies, Labour markets, etc. Each of these is preceded by a summary of about 200 words sketching forecasts of trends in the economic sector under discussion. Some summaries, however, appear to reflect the organisation of the article or chapter (eg. OECD/84, p.59).

There is a small number of articles which begin with questions that seem to set the writer's arguments into perspective. Although they subsume a dialogue involving an information seeker and a respondent, these questions do not seem to be questions in the traditional sense which reflect "Question-Answer sequences" (Coulthard, 1985:184). They look like questions in Tadros's sense and could best be seen as what we might call **framing questions** since they appear to be used by the writer as a strategy for outlining his argumentation leading to a forecast. Like any questions however, Framing questions may be couched grammatically either directly as in example (1) or indirectly as in example (2).

- (1) How is the pattern of exchange rates likely to evolve over the next year or so? Will the dollar remain strong, supported by capital inflows induced by high interest rates, or will the continuing large deficit projected for the US current account weaken it? And what are the forces likely to affect the other major currencies? These questions are addressed below. (OECD/84,p.67)

- (2) With the OECD economy, and most economies individually now well into recovery, crucial questions are how strong, and how durable the recovery will prove to be.
(OECD/84, p.15)

The third part of the journal surveys the developments of items of Domestic Economy, namely **Demand, Output and Prices** in the 24 OECD individual countries.

Sections devoted to economically influential countries - viz the USA, Canada, Japan, France, Germany, Italy and the United Kingdom have headings and subheadings while the sections devoted to other countries bear no headings. One reason for such discrimination may possibly be the economic supremacy of the 'Big seven' over other OECD countries and over the non-communist world as a whole. On textual grounds, however, the presence or absence of headings and subheadings in these sections can be ascribed to the length of text which, of course, does seem to be related to the economic status of the countries in question. As a matter of fact, excluding the interspersed graphs, subsections and subheadings are found in this journal in texts nearing or exceeding 1500 words in length (e.g. United Kingdom, OECD/84, p.98 with 1550 words) but none are found in texts of about 400 words long (e.g. Finland, OECD/84, p.116 which has 392 words).

In the present analysis however, the texts extracted from this publication belong to the latter

categories (for reasons expounded in section 1.3.3). That is 17 texts, each averaging 465 words in length and devoted to developments of the Economic components of Demand, Output, and Prices in 17 OECD countries, have here been selected for analysis.

1.3.2.4 The EIU's World Commodity Outlook

World Commodity Outlook: Industrial Raw Materials is one of the EIU's annual publications. The issue considered here is that for December 1982 which contains forecasts for the following year.

The journal starts with a very long introductory article of about 4,500 words which overviews the world economic situation and its impact on the market of industrial raw materials in general before each material (referred to in the survey as **sector**) is examined in detail. The sectors are grouped according to the nature of material they study, i.e whether the materials are **ferrous**, **non-ferrous** or **alloying metals**, **fibres** or other raw materials. The survey of each sector has two components: a chart giving statistical data on the world reserve, production, consumption, prices, trading, stocking and use of a given raw material such as Copper, for example, and an accompanying article reporting on the performance of the material in the market over the recent past and the writer's projection of its likely performance over a forecast future period.

In the present analysis, sections devoted to each sector are taken as independent texts. For reasons to be discussed later, 11 texts averaging 1178 words in length have been selected. The statistical charts preceding these texts have been ignored because of their lack of verbal information.

1.3.3 Extracted Texts

A total of a hundred texts have been extracted from the sample publications described above with a view to analysing the schematic structure as well as the manner in which authors modulate the predictions found in economic reports and surveys. The corpus obtained in this sample consists of about 50,000 words. The texts represent that part of the economic survey usually referred to by economists as a **country review** or a **sector review** depending upon whether the publication is an economic survey of countries or markets, or of market items in countries.

Although the findings of the thesis are based on an analysis of this corpus, liberty has been taken, for the purpose of generalisation and validation, to look further afield on occasion for wider exemplification and to consider more recent issues of the same publication. This has been done to avoid having to cite made-up data to illustrate a point where no convenient examples exist within the corpus.

Table 1 summarises the corpus described, from the

Page removed for copyright restrictions.

sources to the extracted texts, while a detailed referencing of each selected text can be found in **Appendix 1**.

Forty-four of these texts incorporate diagrams (chiefly time-series graphs or statistical tables) but it is not felt that the diagrams need to be dealt with separately in the linguistic analysis since they are not separated from the texts in which they are found and also what they represent is sometimes verbalised by the writer.

In the thirty-six texts from Abecor, sentences portraying the projected trend in interest rates are boldfaced suggesting, according to the editor, that this is the message that the writer would like the reader to remember.

The seventeen texts from the World Commodity Outlook on the other hand possess an interesting physical feature in that the apparent subheadings featured in the texts are in fact genuine sentences summarising the ideas imparted in each paragraph. This is a somewhat original way of presenting text in that most other writers tend to give titles rather than summary-like sentences to paragraphs.

In comparison with other selected texts, the WCO/83 texts are fairly long, varying from just under 900 to just over 1800 words. The summary-like sentences in these texts appear to corroborate the observation

made earlier that **length** may be one important reason compelling writers to cut and give titles to parts of their texts.

The hundred texts that make up the corpus of the present analysis have not been collected at random, but systematically with identifiable motivations and criteria. These are discussed in Chapter Three.

1.4 Areas of exclusion

Although interested in the language of forecasting, this thesis does not draw exemplification from forecasting texts pertaining to fields other than Economics such as Meteorology, Astrology etc. for the simple reason that I have no pedagogical motivation to incorporate them into analysis. Furthermore, the present investigation is not a contrastive study though, Pindi and Bloor (1987) have shown that the structuring of ideas and the language of forecasting in economic reports are comparable to those in texts from other forecasting sources such as high-quality horoscopes.

The second type of data excluded from the analysis are forecasting texts, even of economic interest, from newspapers and wireless broadcasts. These are secondary sources which may have different motivations for reporting a given forecast as a news item. Furthermore, forecasting texts from English newspapers especially, have already been researched by Zuck and Zuck (1984a).

Finally, texts from pedagogical materials such as

textbooks are also discarded because they are intended for teaching rather than other purposes of economic interest such as guidance on investment. I also suspect that the type of predictions they contain may be axiomatic, of the sort "if you use such principles, you get such results" as shown by Mead and Henderson (op.cit).

1.5 Outline of the thesis

The linguistic analysis of the schematic structure of Economics forecasting texts reveals that an economic forecaster hardly goes straight to predicting what the future course of trends in a market or an economic sector may be, but rather tends to follow a pattern of reasoned arguments leading into the prediction per se.

Chapter Four of the thesis explores the pattern of arguments in economic forecasting which denotes the overall structure of texts surveying an economic sector, a market sector or a country economy. Not only is a description of this pattern given in this chapter but also the ordering of schematic categories is discussed. It follows from this chapter that one essential characteristic of an economic forecast is a conglomeration of predictions centred around a major one, which reflects the topic of the text. A close linguistic examination of these minor and major predictions reveals a number of strategies authors use

to make their assessments of markets or country economies more acceptable to their readership without committing themselves or their institutions, to the predictions made. These strategies are referred to in the thesis as strategies of proposition modulation by economic forecasters.

Chapter Five tackles the strategy of modulating by specifying conditions. It is reported in this chapter that a number of predictions in economic reports and surveys are conditional and that authors use them for the purpose of hypothesizing, disclaiming, reinforcing or revoking a scenario and that they use different conditional forms to achieve these objectives.

Chapter Six on the other hand concentrates on the modulation strategy of hedging. The chapter reports on how economic forecasters use hedges to rate the chances of fulfilment of their predictions, to assert their own judgement or to reformulate a prediction. It is argued in the chapter that these functions have different linguistic exponents, which reflect the syntactic position of the hedge in relation to the proposition modulated.

These two major authorial strategies of modulating propositions expounded as economic predictions differ from the third in which the writer refers to specific sources whose predictions he either endorses or rejects or whose predictions he uses to support his own. This is the strategy of modulating predictions by attribution

discussed in Chapter Seven.

Each chapter starts with an overview which shows how the discussion in the chapter relates to the main argument in the thesis, sets out the objectives to be attained and outlines the discussion in the chapter. Sometimes, especially in the core Chapters Four through to Seven, the overview encompasses a brief survey of the literature from the mainstream Text and Discourse Linguistics as also from ESP-oriented Applied Discourse Analysis that is felt to be germane to the particular aspect of the analysis dealt with in the chapter. Such literature surveys should be seen as tying in with the general overview of the relevant literature found in Chapter Two.

The linguistic analysis reported in these four core chapters is not the result of the researcher's intuitions alone. These have been validated against the views of specialist informants.

Chapter Three includes a survey of the use of specialist informants as a research method in ESP and suggests that not only phone calls and letters but also structured interviews and questionnaires are valuable tools for approaching the informants. The chapter also explains to the reader the rationale behind the collection and selection of the analysed corpus as well as reporting on the procedures followed for tackling the corpus analysis.

Lastly, Chapter Eight summarises the findings of the research and argues that these add and relate to existing genre-specific models using Schema for Text Structure and also that they offer insights into the nature of modulation of propositions in Specialist Discourse.

The chapter concludes by proposing a number of recommendations for teaching English for Economics and for further research into the language of forecasting in English.

1.6 Note to Chapter One

(1*) Barclays Commodity Surveys have no summary.

Chapter Two: Review of the Relevant Literature

2.1 Overview

This chapter provides an overview of two key linguistic concepts, namely **schema** and **hedges**, used in the present analysis as theoretical constructs. It aims at exploring briefly how the terms have been used in mainstream Text and Discourse Linguistics, how they have been interpreted in the ESP-oriented Applied Discourse Analysis literature and how they relate to the main concern of this thesis, viz the analysis of schematic structures and of modulation strategies in texts extracted from economic forecasting reports and surveys.

The chapter begins with a discussion of the schema-theory which incorporates a survey of recent trends in schema studies. One of these closely related but different trends is made up of a group of studies that has interpreted schema as an aspect of Text Structure, otherwise known as schematic structure (van Dijk & Kinstch, 1983). The discussion focuses on this facet of schema studies, in so far as it includes a critical appraisal of genre-specific models of schematic structure in ESP, supported by real data, and shows the relevance of all these studies to the present work.

The second part of the chapter deals with hedges. The position of Lakoff (op. cit) is surveyed and appraised. This section shows how Lakoff's

interpretation of hedges has been extended in ESP to encompass areas of modality, especially **condition** and **Attribution**, which are of central relevance to the present analysis.

The contention in the thesis is that the schematic structure of the texts under analysis provide the discourse background against which features of modality, so evident in the corpus, are discussed.

2.2. A Brief Survey of the Schema-Theory

Ever since Bartlett (1932) used the term Schema to refer to the idea that new knowledge or experience can only be interpreted in the light of previous knowledge or experience, it has acquired increasing theoretical status especially since the seventies.

Schema-theory now amounts to the body of research that has examined "how people process, comprehend and remember information in texts". (Thorndyke & Yekovitch, 1980:23). It lies at the intersection of many disciplines, namely Psychology, Artificial Intelligence, Sociology, Ethnography and Linguistics. Its concepts are also known by such names as **frame** (Minsky, 1975; Goffman, 1974; Hymes, 1962; Fillmore, 1976 a & b); **script**, **goal**, **plan** (Schank & Abelson, 1977); **scenario** (Sanford & Garrod, 1981) etc. - notwithstanding the subtle different connotations the names have acquired in the above-mentioned different disciplines.

In this thesis however, the terminological

disputes are disregarded and the term **Schema** will be used consistently. The reason for this choice is that the basic pre-occupation of proponents of Schema-Theory remains the same. They wish to provide ways of representing knowledge stored in the memory and show how it relates to discourse processing (Brown & Yule, 1983:238) and, to some extent, the variation in terminology is a matter of idiosyncratic preference. This view is also shared by Tannen (1979:138) and Lindermann (1983:26) amongst others.

Rumelhart (1984:2) posits that: "A schema theory is basically a theory about knowledge. A theory about how knowledge is represented and how that representation facilitates the use of knowledge in particular ways."

An historical account of this theory as well as a critique of the theory as developed in the seventies may be found in Thorndyke and Yekovitch (op.cit) and will not be repeated here. But looking at the current trends of inquiry in discourse studies, it is possible to identify three related variants of Schema-theory: Schema as social structure, Schema as cognitive structure and Schema as text structure. As such, this taxonomy differs from others that one might find in other studies of schema such as those in the context of formal learning (e.g Donald, 1987).

2.2.1 Schema as Social Structure

Discourse studies which see schema as social structure may be said to be a development from social scripts (Schank & Abelson, op.cit) and verbalization of personal encounters (Chafe, 1977 ; Tannen, op. cit). They highlight the social context of discourse interaction.

A theoretical model of such a variant of Schema is Cicourel's interactive model (Cicourel, 1980). For Cicourel, the importance of formal structures of discourse such as syntactic, turn-taking, or macro-level text on story grammar rules, are dependent on the local conditions of interactions in assigning semantic significance to what is said in specific discourse events. The knowledge of a particular social schema or script, i.e a particular context of interaction, can be used as a background for both interpreting present discourse and for anticipating the direction, steps or phases in which the discourse may proceed. Schema is thus seen here as a

" means for interpreting and participating in ongoing discourse with possible modification or elaboration. The process of verbalisation or articulation requires negotiation with other interactants, during which various schemata or scripts are proposed and evaluated, until mutual understanding is achieved and signalled in the interactive process" (Corsaro, 1983:3).

This is the kind of study found in Chafe's pear stories (1980) and other oral narratives of personal

encounters (Corsaro, op.cit; Ventola, 1983, etc.).

2.2.2 Schema as cognitive structure

Discourse studies which consider Schema as a cognitive structure attempt a formal representation of the way people understand, recall or summarise discourse. They represent the most popular use of Schema.

Two theoretical models are currently outstanding in these studies: Rumelhart's Schema-theoretic model of understanding (Rumelhart, op. cit) and Kintsch and van Dijk's model of text comprehension and production (Kintsch & van Dijk, 1978 and van Dijk & Kintsch, 1983).

For Rumelhart, a Schema is a data structure for representing the generic concepts stored in memory. These concepts or schemata underlie the perception of objects, situations, events, sequence of events, actions and sequences of actions and are acquired through experience. His theoretical model formalises the process of hypothesis generation and evaluation during the process of language and reading comprehension. (Also see Coady, 1979; Adams & Collins, 1979; Carrell & Eisterhold, 1983). His contention is that as people read particular words and sentences of a text, schemata are activated, evaluated and refined or discarded. So understanding is "the process of finding a configuration of schemata which offers an adequate account of a

passage or situation" (p.18). But where there is a mismatch between the reader's background knowledge and the author's message encoded in a text, misunderstanding occurs. Rumelhart therefore proposes various approaches for studying this process and as with his previous works on story grammars (Rumelhart, 1975 and 1977), his model can be simulated with the computer.

Rumelhart's model has much in common with the model proposed by Kintsch and van Dijk (op.cit). They describe the system of mental operations that underlie the processes occurring in text comprehension and in the production of recall and summarisation protocols. They argue that these processes are partly reproductive and partly constructive during which readers negotiate the meaning of a text by interpreting its micro- and macro-propositions.

A number of useful studies describe the various types of cognitive structures that people use in text processing. These may be culture-specific (Johnson, 1982), subject or discipline specific (Alderson & Urquhart, 1983) or rhetorical (Kintsch & Yarbrough, 1982) among others.

2.2.3 Schema as Text Structure

The third group of discourse studies see schema as the patterning of information in discourse. I am alluding here to conventional studies of overall text organisation.

This group represents a development from previous studies of story structures (Rumelhart, op. cit; Labov & Waletzky, 1967) and focuses on schematic structures of discourse. Schematic structures are specified by a set of characteristic categories and sometimes a set of rules of formation and transformation defining the canonical and possible ordering of the categories (Kinstch & van Dijk, op.cit: 366). These schematic structures can be mapped onto new instances of discourse to make sense of it.

Such studies are gaining ground in ESP-orientated Applied Discourse Analysis.

Swales (op. cit:15, 1983:188, 1984:80, 1986a:45) for example speaks of **Schema** when designating the 4-part structure of Introductions to Scientific journal articles. Davies et al (Johns & Davies, 1983; Davies & Greene 1984 and Davies, 1985) assert that information imparted in secondary school textbooks could be systematically standardised into 'topic-types' based on Fillmore's idea of **conceptual Frames** (Fillmore, op.cit), while Zuck and Zuck (op.cit) retain the label **Script** to refer to sets of stereotypic patterns of semantic content found in newspaper texts, even though their definition of the term script is idiosyncratically different from the standard one proposed by Schank and Abelson (op.cit:41).

What is common to all three studies, however, is

their potential to offer "predictive structures" (Williams et al, op.cit:86) or "stereotypic expectations" (Zuck & Zuck, op.cit.) that can be mapped by learners on to new texts pertaining to the same genre.

Swales (op.cit) has reported how some of the population to whom his model was subjected bettered their ability to reconstruct jumbled research article-introductions after the schema was explicitly taught to them. Davies et al's taxonomy of topic types is reported to have proved successful as a teaching strategy for Reading-Comprehension when supplied with appropriate exercise types and has been used by science teachers in certain British secondary schools. Zuck and Zuck, furthermore, have contended that an explicit knowledge of their script by learners would enhance the latter's ability to understand new newspaper texts.

One may therefore observe that the idea that PRIOR knowledge of the overall structure of a given type of text may facilitate reading - comprehension is a primary consideration in the revival of the notion of **schema** in the current Applied Linguistic literature.

The emergence of interest in Schema studies by ESP practitioners clearly marks a digression from traditional schema-using models in Text and Discourse Linguistics. These models are essentially based on analyses of narratives (Labov & Waletzky, op.cit; Rumelhart, op.cit) and many other discourse studies of

folktales or fairy - like tales which Carrell, in a competent review of the relevant literature (Carrell, 1983), has chosen to classify into **Formal** and **Content** schemata and whose effects she has tested on learners' comprehension (Carrell, 1987). But as Davies (1985:108) has observed, while the story structure - i.e. Setting, Goal, Action and Resolution - is useful for the study of narrative extracts in English, History and Literary themes, its potential for the study of Science and Humanities texts can be limited.

It is partly in the hope of furthering the above line of enquiry that the present analysis has been undertaken. The results of the analysis of the schematic structure of texts pertaining to the genre of Economic Forecasting in English are found in Chapter Four but an attempt is made in the next section, to review briefly the available schema-using models in ESP in terms of their research rationales.

The survey also aims to test the applicability of existing models of analysis at the level of schematic structure, to texts of the corpus for the present analysis. The need to test these is both theoretical and pragmatic. From the theoretical point of view, a chance is given here to test the hypothesis that although genre-analysis

"manages to reveal something of the internal and external language of a conventionally constrained communicative event, it follows by reason of its

orientation that it may have little to say about other, apparently quite similar, communicative events" (Swales, 1985: 213).

Practically, the survey is motivated by the view that there is surely little purpose in proposing an alternative if an adequate model already exists.

For reasons of space and operational constraints however, the number of texts on which the models are tested is limited to the strict minimum.

2.3 A Survey of Schema-using models in ESP

2.3.1 Davies et al's Topic - Types

2.3.1.1 Description of the model

Taking Fillmore's notion of "Conceptual Frame" as a theoretical construct, Davies et al (op.cit) developed a taxonomy of **topic - types** to account for the types of information constituent found in science and humanity texts.

Their contention is that although ESP texts may differ superficially in terminology, subject matter and an infinite number of topics, they may be classified into a finite number of types according to the kind of information constituents they contain, which consistently cluster together in characteristic groups. They observe that science texts for example may be classified into three categories according to what they are about. These they label **activities**, **phenomena** and **ideas**. Within each of these categories, further types of

text are identified, differentiated according to "the sort of things they are about, i.e topic-type of information structure" (Davies & Greene, op.cit:79). The topic-type gives the frame or structure label. A topic-type, they maintain, represents a class of topics which share the same information constituents or slots. Two of these topic-types, namely **Social Structure** and **State/Situation**, are claimed to underlie the semantic content of Social Science texts.

Commenting on the analysis of texts in the light of their model, Davies and Greene (op.cit:82) note that some slots of a frame may be left empty for lack or excess of information load. Also, some texts - especially long ones - may have more than one frame.

Table 2 summarises the topic-types found by Davies et al to underly the structure of non-narrative text.

Table 2 Matrix for Topic Types in non-narrative text



(Reprinted from Davies, op.cit:111)

2.3.1.2 Critique of the model

The pedagogical merit of Davies et al's work is increasingly acknowledged by ESP practitioners. Todd-Trimble (1985:382) for example agrees that Davies et al have succeeded in devising a technique which improves the ability of pupils to learn through reading by helping them to develop expectations of the particular types of texts to be met. She is surprised that the tasks recommended by the authors are more successful in science than in the traditional English class. Hamp-Lyons (1985:367) commends the writers for their detailed and clear account of a reading strategy in which the text is used as a vehicle for information.

At the same time, however, few comments have been directed to the research rationale followed by the authors. Therefore, what is perhaps needed here is an appraisal of Davies et al's method of investigation.

It is noticeable that the authors do not define or comment on the terminology used in labelling the frames and their slots. Perhaps they assume that this is simple and should be transparent to any teacher. This is not so. How, for example, can the terminological difference between **struccure** as frame and **structure** as constituent of the **process** topic-type be made clear?

The fact that Davies et al provide labels without any explanation may bring some confusion to the application of their analytical framework. For example,

the differences they set up between **hypothesis** and **hypotheses** as well as that between **question** and **problem** as distinct constituents of the **Hypothesis - Theory** Frame or topic-type are not clear. Similarly, the distinction between **instances** and **examples** as alternative slots of the **Frame Concept - Principle** is not apparent.

Other nagging terminological points concern, on the one hand, the pair **step** (**INSTRUCTION**) and **stage** (**PROCESS**) both of which one could argue, refer to the same idea of 'sequence' and for which there is apparently no need for differentiation. On the other hand, it is not clear how **Result** (**INSTRUCTION**) differs from **results** (**HYPOTHESIS**). Whether the singular / plural dichotomy implies that one would expect more than one result in texts expounding the **hypothesis** Frame is also not clear.

A further worry is the distinction made by the authors between **time** as part of the constituent **location** in the **STATE / SITUATION** frame and **time** as a constituent in its own right of the **PROCESS** topic type. The difficulty here is to know the circumstances governing the inclusion or exclusion of **time** as a sub-constituent of **location**.

Neither in their original publication nor elsewhere have the authors of the topic type model attempted to alleviate the ambiguity of their terminology. It is for example surprising to see that Davies and Greene use

Text-type and **Topic-type** interchangeably. While they have coined the term topic-type, text-type is familiar in ESP literature when referring to genres, which are forms of writing which differ in communicative situations such as articles, textbooks, reports etc. (see Sager et al, 1980:147-181 for a taxonomy of text-types in ESP).

Furthermore, many of the constituents of the frames in Davies et al's model are reminiscent of functions/notions found in previous taxonomies (Wilkins, 1976; van Ek & Alexander, 1975 etc.).

Examples are such categories as **condition**, **result**, **example**, **comparison**, **location**, **property**, **function**, **state**, **definition**, **measure** etc.

It is also unclear how to account for the recurrence of many categories in different forms. Consider for example the topic-types **mechanism** and **physical structure**. They are distinguished only by two constituents: **action** and **object** which may not be present in a given text. It might thus be difficult to fit the text into the correct frame.

Finally, some of the constituents such as **function**, or **property** might reveal themselves to be redundant when headings bearing the same labels such as function, property etc. have already been provided by the author of a given text as is sometimes the case in elementary textbooks.

In addition to these grounds for concern about the

lack of precision in use of terms, Swales (1986b) has cast doubts upon the viability of Topic-types as the main criterion for text differentiation, arguing that they overlook the importance of the communicative purpose of the resulting discourse.

Nevertheless, I should like at this point to try to analyse a text from my corpus using the model proposed by Davies et al since they argue that some of their topic-types may be applied to Social Sciences texts.

STATE/SITUATION and **SOCIAL STRUCTURE** topic-types appear to be indicated since they are recommended by the authors of the model as the basis for the selection of texts for students of social sciences (Johns & Davies, op.cit:7), such as Economics.

The text has been broken down into numbered sentences and clauses for ease of reference while the ensuing analysis of the text follows the pattern of analysis suggested by the authors of the model. (See Johns & Davies, op.cit:6; Davies & Greene, op.cit: 80, 92, 96, Davies: 112 - 113).

2.3.1.3 Applying the Model to Economics forecasting texts

Example 1: TEXT 81: INFLATION (see Vol.II, p.105)

2.3.1.3.1 An attempt at fitting the text "INFLATION"
into the SOCIAL STRUCTURE Frame

MEMBER or GROUP	LOCATION	CONDITIONS	ROLE or RESPONSIBILITY	ASSETS or OUTCOME
Most industrialised economies (1)	Canada (2a) France & Italy (2c) in the main industrialised countries (5a) in many countries (6b) in the USA, West Germany, Japan and United Kingdom (7b) particularly in the United States (8a) in the Middle East (10a)	in the absence of any major supply disruption (10a) if demand weakens (10c)		the balance of risk has probably swung towards lower oil prices (10b)
within OPEC (10e)	in the USA, SA and Australia (12d)	Assuming more normal weather conditions (14a)		the prospect of increases in supply (in 1984), will limit the rise in food-stuff prices to around 7% (14b)

The text INFLATION does not fit well into the SOCIAL STRUCTURE frame. Although some expressions can be classified in terms of location, condition, member or group and asset or outcome, the resulting chart does not account for the whole content of the text.

The inability of Davies et al's topic-type to capture most of the content of the text may be ascribed to the lack of information about what is exactly meant by each category, hence creating ambiguity. It may well also be that an incorrect frame has been applied. Let us therefore switch to the second frame, claimed by the model's authors to be also applicable to social sciences texts.

2.3.1.3.2. An attempt at fitting the text " INFLATION"
into the STATE/SITUATION Frame

PARTICIPANTS	CONDITIONS	LOCATION		EFFECTS	EVENTS or INNOVATION
		TIME	PLACE		
Most major industrialised economies (1)		now (1)			at or just beyond the cyclical low in inflation (1)
		in the			
		fourth			
		quarter			
		of this			
		year (2b)	Canada (2a)		
		next year			
		(2c)	France & Italy(2c)		
			in North America(4a)		
		over the	in the main		slight rise
		last few	industrial		in the annual
		months	-ised		rates of
		(5a)	countries		inflation
		in late	(5a)		(5a)
		1982 (5a)			
		over the			
		coming			
		six			
		months			
		(5b)			
		this year			the growth
		(6a)			in unit
					labour costs
					has fallen
					sharply (6a)
					zero change
					(6b)
		in the	in many		
		year to	countries		
		the	(6b)		
		second			
		quarter			
		(6b)			
			in the USA,		a
			West		continuation
			Germany,		of the
			Japan and		cyclical
			United		rise in
			Kingdom		productivity
			(7a)		already
					evident (7a)
		during	particularly		
		the	in the		
		second	United		
		half of	States (8a)		
		1984 (8a)			

PARTICIPANTS	CONDITIONS	LOCATION		EFFECTS	EVENTS or INNOVATION
		TIME	PLACE		
Within OPEC (10d)		currently & late 1982 (9a)			oil prices are almost 15% below the level of (9a)
		over the next year (9b)			
	in the absence of any major supply disruption (10a)		in the Middle East (10a)		
				the balance of risk has probably swung towards lower oil prices (10a)	
	if demand weakens (10c)				
		over the coming year (11) this year (12a)			Non-oil commodity prices have been boyant (12a)
		in the year to the third quarter (12b)			Non-oil commodity prices, in dollar terms, increased by 21.5% (12b)
			in the USA, South Africa and Australia (12c)		
		next year (13b)			
	Assuming more normal weather conditions (14a)				
		in 1984 (14b)		the prospect of increases in supply will limit the rise in foodstuff prices to around 7% (14b)	

2.3.1.4 Observations

In comparison with the preceding attempt, one may be tempted to suggest that the STATE/SITUATION frame is more successful in its application to the text "INFLATION". All the **time** and **place** expressions have been accounted for, along with **events** that, according to the drift of the text, have actually taken place (1, 5a, 6a, 7b, 12a, 12b). However, when examined closely, one notices immediately that, apart from a couple of successful instances in which it has been possible for a complete idea to be imparted (see analysis of sentences 10 and 14), the resulting chart is a list of atomic propositions that do not fully reflect the content of the text as a whole.

While success probably results from my understanding of the category **condition**, failure is displayed in the chart by the numerous empty boxes. These would have covered propositions 5a, 5b, 7a, 8b, 10c, 12c, 12d, 15b which express **causality** and propositions 2b, 3, 4b, 7a, 7c, 8a, 9b, 11, 14b, 15a, 15c, 15d which in fact are predictions.

Furthermore, the frame STATE/SITUATION does not account for another important category occurring at the micropropositional level, viz comparisons as in 9a, nor does it help the reader to capture some topic words in the text such as inflationary upturn (3), inflationary

pressures (4a), inflation (1, 2a, 5a, 7c), oil prices (9a) or non-oil commodity prices (11).

The success/failure rate of this topic-type and hence of the model with regard to the propositions present in the text may be sketched as follow:

success

Events: 1, 5a, 6a, 6b, 7b, 9a, 12a, 12b

Condition: 10a, 10b, 14a;

a total of 10 propositions out of 33 representing 30.3% of the content of the text.

Failure

Causality: 5a, 5b, 7a, 8b, 10c, 12c, 12d, 15b

Prediction: 2b, 3, 4b, 7a, 7b, 8a, 9b, 11
14b, 15a, 15c, 15d;

a total of 20 propositions out of 33 representing 60.6% of the text's content.

These figures tell us that, despite the exclusion of the incidence of topic words in the frequency count, the number of propositions in the text that remain unaccounted for by the frame STATE/SITUATION (58%) greatly outweigh the number of propositions that have proved to fit in the frame (30%).

It seems clear that both topic-types claimed by Davies et al to underlie the information content of social science texts are not likely to be applicable to Economics forecasting texts. This is probably because the topic-types model is based on texts from "textbooks as a genre" (Hewings & Henderson, 1987:157) and therefore it is not surprising from the theoretical point of view of genre-analysis (Swales, op.cit) that

despite the fact that Economics is a Social Science par excellence, the structure of an Economics forecasting text could not be accounted for in terms of another genre-specific schema. The inability of this model to analyse the structure of this text equally tells us that perhaps the text analysed belongs to another genre and therefore there is probably a need for an alternative way of approaching the schematic structure of such a text and inter-alia of texts of the genre to which it belongs.

2.3.2 Zuck and Zuck's Forecasting Script

2.3.2.1 Description of the model

Of all ESP-oriented Applied Discourse Analysis literature, the work of Zuck and Zuck (op.cit) is most closely relevant to the present thesis since it is designed to account for forecasting texts.

Zuck and Zuck have developed several scripts on the basis of texts extracted from newspapers. For example, the Changing Power Script, the Taking in Stock Script etc., but what is of concern here is their work on **Forecasting Script**.

They carefully define most of the terminology used in their model. For example, they see a **script** as a "set of stereotypic expectations about content in a given text " and **FORECASTING** as a " form of prediction which seems to depend on the specialised information and

training of the forecaster for its legitimacy". They contend that the FORECASTING SCRIPT is tentatively recognised on the surface by expressions such as: sees, predicts, expects etc. Whereas in terms of semantic content, it displays the following categories together with what they amount to:

Table 3: An outline of Zuck and Zuck's Forecasting Script
(2*)

!CATEGORY	!MEANING	!IMPLIED QUESTION	!
!1.Prediction	!expected trend !or event	!What is going to !happen ?	!
!2.Time	!period covered !by the forecast	!When are we !talking about ?	!
!3.Source	!person or group !who or which !gave the forecast	!who made !the prediction? !What !organisation !released the !prediction?	!
!4.Basis	!evidence upon !which the !prediction is !based	!what evidence is !the forecast !based on?	!
!5.Range	!extent of the !forecast	!who/what is !affected by the !forecast	!
!6.Reassessment	!change from an !earlier !prediction	!what was !otherwise !expected?	!
!7.Modification	!changes that !could be made !to prevent a !prediction from !coming true or !merely to augment !or weaken its !force	!Are there factors !which could change !the basis of the !prediction? Are !there ways to !augment or reduce !the impact !(consequences) of !the forecast when !it comes true ?	!

The authors give the following extract to illustrate their analysis;

(Text L - New York Times - March 16, 1982
p.C-3) Mount Helens continues to rumble
(Vancouver, Wash., March 15 (AP))

(1a) Mount St. Helens will erupt, probably mildly, in one to five days, (1b) scientists said tonight (1c) after conducting tests within the volcano's crater. (2a) Scientists from the United States Geological survey and the University of Washington's Geophysics Center flew into the crater today (2b) and measured the floor and the dome-shaped lava formation (2c) to check for swelling or expansion. (3a) They then issued an advisory (3b) saying (3c) the accelerating rates of ground swelling indicated (3d) the eruption was due.

(4a) Last Friday the two agencies issued an advisory (4b) predicting a possibly violent eruption within three weeks. (5a) They said (5b) changes in the crater flood and the increased tiny, deep earthquakes pointed to a new eruption within three weeks. (6a) Very small earthquakes continuously shook the mountain over the weekend, (6b) but the volcano remained relatively quiet today.

2.3.2.2 Critique of the Model

I have chosen this particular example because it is the only complete text analysed in their paper. I have broken the text into different sentences and clauses for ease of reference in my discussion. These clauses, and indeed the propositions they express, are comparable to narrative units because the events they describe are evidently time-sequenced (Urquhart, 1984) with the exception that the events are not reported exactly in the order in which they occurred.

Another reason for breaking the text into propositions is that it is probably the only way that the relations or categories of the Forecasting Script can be captured. Zuck and Zuck instead use the sentence but one quickly notices that the first sentence alone includes four categories (**Prediction** (1a), **Time** (1a), **Source** (1b) and **Basis** (1c)), of the seven that make up the script.

As far as their categories are concerned, one may observe that Zuck and Zuck have usefully applied some well known relations in Text and Discourse Linguistics (see Halliday and Hasan, 1976 and de Beaugrande and Dressler, 1981 for TIME; Longacre, 1983 for SOURCE and RANGE; Winter, 1982 and Hoey, 1983 for BASIS; and Grimes, 1975 for most of their categories). Nevertheless, their use is evaluated here on the basis of the text quoted above.

The text Mount St Helens Continues to Rumble is evidently a forecasting text since it contains a number of forecasts or predictions expounded in propositions (1a), (3d), (4b) and (5b).

This is the order in which the predictions occur in the text, but pragmatically, we know that propositions (4b) and (5b) make up the earlier predictions, superseded by (1a) and (3d).

It can however be said that this Forecasting Text consists of "reported forecasts" since we have, (a)

scientists of various agencies (Primary source) releasing through an advisory source a prediction which is, (b) echoed by a journalist (secondary source), who then makes it a headline. Hence perhaps the prominence given to SOURCE as an obligatory component of the script: "a very important category in this script", in their own words (Zuck & Zuck, op.cit: 150).

I suspect that this category may not be so perceptible, if it is perceptible at all, in the primary source material which I hold to be also a forecasting text in its own right.

Zuck and Zuck see proposition (1a) as the only prediction per se. Proposition (3d) is treated as part of the BASIS expansion, whereas propositions (4b) and (5b) are viewed as part of the REASSESSMENT category. In their own words, "Paragraph three - i.e propositions (4a) to (6b) - contains reassessment from an earlier prediction" (p.153) (my emphasis). The earlier prediction referred to is contained in propositions (4b) and (5b). It is thus interesting to know exactly what Zuck and Zuck mean by REASSESSMENT : what is being reassessed or what/who is reassessing ? It does seem that as far as this particular example is concerned it cannot be the second case. If so, one may wonder about the justification of the expression "reassessment from" or "change from an earlier prediction".

The point I wish to make here is that as far as I understand both the text and the Forecasting Script

categories, REASSESSMENT entails a previous prediction rather than a change from a previous prediction.

The category TIME is not fully convincing either. Although it is true that the TIME at issue here is the time assigned for the occurrence of the event predicted, which in the text refers to the expression in one to five days found in proposition (1a), several other time expressions are left unaccounted for. These include tonight (1b), today (2a), then (3a), Last Friday (4a), and over the week-end (6a). At the same time, the time expression within three weeks found in proposition (4b) is considered as part of REASSESSMENT.

The category RANGE is not illustrated in the text. The authors of the model seem to expect the readers of such texts to infer the range, in this example the destructive effects of a volcanic eruption.

Although they do not state what sentences the category MODIFICATION covers in the text, we understand this to be expressed in propositions (6a) and (6b).

Even though the authors have explained most of the labels of their script, there seems to be some ambiguity of terminology. One wonders whether in their terms, **Forecast** is the same or different from **prediction**. In defining the script, they say that **forecasting** is not just a mere **prediction**. Yet, when they explain the different categories of the model, the terms **Prediction** (see explanation of categories 1, 4, 6, and 7) and

Forecast (see explanation of categories 2, 3, 4 and 5) appear to be used interchangeably.

Zuck and Zuck recognise that they have yet to sort out obligatory from optional categories. They still, additionally, leave us with one other problem. They do not discuss the sequencing of these categories, nor do they provide any possible justification for such a sequence. In the few examples they have provided, four categories: **Prediction**, **Time**, **Source** and **Basis** appear to occur at the threshold of the text in that sequence.

One might argue that such a sequence is possibly due to the fact that the first sentence, which, as recognised by Zuck and Zuck, carries the topic of the newspaper text, is an artifact of the journalist who tries to summarise in it the whole story in order to capture the reader's attention. Only in subsequent sentences will the journalist give the chronology of events. It is not unusual for the title of a newspaper text to be made 'sensational' to attract the attention of a busy readership.

If this observation is correct, then perhaps the categories of the Forecasting Script can be said to be constrained by the writing conventions of the particular type of text or genre in which the Forecasting script is enacted.

It might thus be useful to see whether the categories of the Forecasting Script as developed by Zuck and Zuck transcend the boundaries of the newspaper

text as a text type by considering a text from the corpus of the present analysis.

Let us then consider the text INFLATION quoted previously.

2.3.2.3 Applying the Model to Economics Forecasting Texts

Example 2: TEXT 81: INFLATION (Repeat)

1: unaccounted for
2a: range
2b: prediction + time
2c: range + prediction + time
3: prediction + time
4a: basis
4b: prediction
5a: unaccounted for
5b: Basis + (time?)
6a: unaccounted for
6b: unaccounted for
7a: prediction/basis
7b: basis
7c: prediction
8a: time + prediction + range?
8b: unaccounted for
9a: unaccounted for
9b: prediction + time
10a: unaccounted for
10b: unaccounted for
10c: unaccounted for
10d: unaccounted for
11 : prediction + time
12a: unaccounted for
12b: unaccounted for
12c: unaccounted for
12d: unaccounted for
13a: unaccounted for
13b: time + prediction
14a: basis
14b: time + prediction
15a: prediction
15b: unaccounted for
15c: prediction
15d: prediction

2.3.2.4 Observations

The difficulties of analysing text 81 using Zuck and Zuck's model are conspicuous. Although some of the categories are found (Range, Basis, Prediction and Time), we are left with many questions. There are too many propositions which do not seem to be covered by any of their categories: 1, 5a, 6a, 6b, 8b, 9a, 10a, 10b, 12a, 12b, 12c, 13a and 15b, which amount to 15 out of 33 propositions of the text or roughly 45.5% of the text content. Such a proportion suggests that to use their model on this text would constrain the analyst to picking selectively rather than really trying to account for every bit of the text. What then of missing categories such as the SOURCE which, the authors say, is very important, or the MODIFICATION which seems to be missing even in their model text (Mount Helens will erupt).

A plausible explanation may be that the text they analyse consists of two stories. One, the original, which the writer is not only relating but also acknowledging by indicating the SOURCE, and the other, an account by the writer himself, in which he gives his own assessment of the story even if he does this by quoting other people. Furthermore, as Bell (1984:90) has shown, what the journalist receives is not always exactly what he entirely reports. Sometimes, there is a tendency on the part of the writer to mould the story in

such a way as to suit the political, religious or other orientations of the publishing institution.

This may also be true of forecasting in newspaper texts. For one thing, one may wish to inquire into the motivation behind the reporting of a given forecast. Is it every forecast that is reported or does it have to be of some peculiar interest to the media? These are aspects that may affect the structuring of, as well as the language employed in, a newspaper forecasting text. Like any newspaper text, newspaper forecasting text may well be analysed in terms of the typical newspaper article schema proposed by van Dijk and Kintsch (op.cit:250), detailed in van Dijk (1985:82) and which consists of two main parts: the SUMMARY (including Headline and Lead) and the REPORT or News Story per se (encompassing previous and/or actual Information and Opinion) made up of Comments and Conclusions).

(1*)

It thus seems that a schema is needed to account for first hand, as opposed to reported or second hand forecasts. Nevertheless, Zuck and Zuck's Forecasting script has served as a model for comparison to the structure proposed in this thesis which also represents an attempt to account for forecasting texts, though here these are drawn from primary sources. In spite of obvious differences, FORECASTING in either newspapers or Economic reports may not be easily recognisable without **prediction and/or basis.**

2.3.3 Swales: Schematic Structure of Introductions to Academic Journal Articles

2.3.3.1 Description of the model

Investigating the schematic structure of introductions to scholarly articles, Swales (op. cit) posits a schema consisting of four moves (see chart 1).

Chart 1: Outline of Introduction to the Research Article Schema

- Move 1: Establishing the field
 - a) by asserting centrality
 - b) by stating current knowledge
 - c) by describing key characteristics
- Move 2: Summarising previous research
 - a) using a strong author-orientation
 - b) using a weak author-orientation
 - and/or c) using a subject orientation
- Move 3: Preparing for present research
 - a) by indicating a gap in previous research
 - or b) by raising a question about previous research
 - or c) by extending a finding
- Move 4: Introducing present research
 - a) by stating the purpose
 - or b) by outlining present research.

Field establishment opens the introduction. It is that part of the text in which the author attempts to establish the significance, relevance or importance of his field of research as well as the usefulness of the research he is going to describe. The writer may alternatively choose to begin the introduction by referring to the state of current knowledge in his field of research, or to a lesser extent by assigning a key characteristic to the subject matter or material under

investigation in the paper. Having done this, the writer then moves on to summarising what has been done in the research field concerned. He may do so by discussing the authors and their contributions (Strong Author Orientation), or by citing the contributions with the names of the authors in brackets (Weak Author Orientation). The article writer may equally choose to refer to previous research by merely stating findings or hypotheses as simple or as qualified results.

The writer then proceeds to show the need for further investigation into some aspects of the research area. He may choose to do this either by indicating some gap in previous research or by raising some question. Alternatively, the writer may indicate how some findings in the previous research can be extended or applied in one way or another. It is only then that the article writer describes what he has done either by stating the purpose of his research or by just giving an outline of what his research is about.

Swales also discusses the striking lexical and grammatical exponents that accompany each move of the research article introduction schema. He arrived at these results by selecting articles at random, cutting off their introductory parts and carrying out a text analysis in which various chunks of the introductions were assigned particular functions.

2.3.3.2 Critique of the Model

This piece of research has been particularly well received in the ESP literature. Jarvis (1983:109) thinks that it provides a framework for understanding why, when and how particular functions are used in article introductions, as well as further evidence of the productive nature of concentration on discourse organisation for understanding communicative functions. Widdowson (1983:102) values it because it "provides a characterisation of the communicative conventions associated with particular areas of language use and takes us beyond the itemisation of notions and functions into larger schematic units upon which procedural work can effectively operate."

Williams, in an editorial comment (Williams et al, op.cit: 83), sees the model as useful in that "it offers a predictable structure against which the reader can mesh the specific content of the introduction, and thus allows easier processing of what is often rather difficult reading matter". Above all, Bley-Vroman and Selinker (1984) use it as an exemplar in their attempt to formalise a research strategy for ESP rhetorical-grammatical analyses.

However, evaluating his method of text analysis, Bley-Vroman and Selinker (op.cit:3) hold that Swales should have used a less random selection procedure and should not have removed introductions from their textual

content. They argue for study of the entire articles assisted throughout by a subject-specialist informant. They have highlighted the use of a specialist informant by challenging some of Swales's analysed texts in which the various moves seem not to have been correctly demarcated. Furthermore, testing Swales's model on Spanish academic journal introductions, Lopez (1982) found only three moves instead of four. Other studies have found the schema to be less likely to account for the structure of introductions to journal articles of social sciences (Crookes, 1986) or for the structure of introductions to journal articles of a discipline with no established literary tradition (Cooper, 1985).

Although Swales's research on Article-introduction is evidently genre-specific (Swales, 1981a:10), it is not clear from this particular piece of research whether what Swales sees as an enactment of a **genre** is the introduction of a journal article or the whole of the research article itself. This is perhaps what Widdowson (op.cit:102) means when he observes that "the work of Swales himself in this paper deals with a general routine abstracted (his emphasis) from particular frames of reference". However, further work by Swales (1985, 1986b, 1987, forthcoming) alleviates this ambiguity and suggests that the journal article as a whole is the enactment of a genre of academic writing. As a matter of fact, he defines **genre** as "a more or less standardized

communicative event with a goal or set of goals mutually understood by the participants in that event and occurring within a functional rather than a social or personal setting" (Swales, 1985:212). **Genre analysis**, on the other hand, may be seen as a "classificatory system (of linguistic analysis), revealing the essential differences both between the genre studied and other genres and also between the various sub-genres" (Dudley-Evans, 1987:2).

Let us now try to apply Swales' model to one of the few introductions recognizable and labelled as such, found in the forecasting reports under analysis. Clauses have been numbered for ease of reference.

2.3.3.3 Applying the Model to Introductions of Economics Forecasting Texts

Example 3 TEXT I: Introduction

(1a) With the OECD economy, and most economies individually, now well into recovery (1b) crucial questions are (1c) how strong, and how durable, the recovery will prove to be. (2a) The forces (2b) which shaped the recession (2c) and which are now propelling the recovery, (2a) are in some respects different from those in past cycles. (3a) As a guide to what the future may hold in store, (3b) this chapter first reviews the key features of the recession, and the recovery so far, (3c) before presenting the OECD's assessment of the most likely outcome over the next eighteen months, (3d) the key uncertainties that surround the projection, (3e) and the risks that may attend the situation.

(From: OECD/84, p.15; Domestic and International Developments: Main features of the projections)

Though it could be argued that this introduction adopts a Question-Answer sequence, more justice may be done to Swales by saying that the introduction appears to contain two moves:

1. Preparing for present research by question raising (sentences 1 & 2); and
2. Introducing present research by this signal (sentence 3).

Although a two move sequence is not characteristic of Swales's introduction schema, evidence recently provided by Crookes (op.cit:64) shows that such a sequence is not entirely alien to academic journal introductions, irrespective of the nature of the scientific discipline to which the journal pertains. But the difficulty in applying the Introduction schema to relevant texts from the present data-base is already becoming clear. A two move sequence is itself an exception to the orthodox four part structure.

Moreover, the two move sequence is not consistent with relevant texts from the data-base of the present project. But perhaps more importantly, the inability of Swales's model to account for introductions to forecasting report articles is further highlighted when one attempts to analyse the following text - also an explicitly labelled Introduction - in terms of his proposed journal Article introduction schema.

Example 4: TEXT II: Introduction

A (1a) OECD consumer price inflation has picked up from an eleven year low, (1b) reached in mid-1983, (1c) but the underlying inflation rate appears to be little changed over the past year. (2) In June 1983 the rate of increase in OECD consumer prices over the previous twelve months was down to 4.9 per cent. (3) That was the lowest rate since late 1972, down sharply from peak rates of close to 13 per cent in 1980. (4a) The twelve-month increase remained close to this rate through the summer, (4b) but subsequently rose (4c) and was 5.8 per cent in April 1984 . !-----

B -----! (5a) This was attributable to a temporary surge in commodity prices in late 1983 and a jump in food prices (5b) due to abnormally cold weather in North America in early 1984. !-----

C -----! (6a) Excluding the effects of volatile food and energy prices, (6b) the trend in other prices remained essentially stable at about 5 per cent through 1983 and early 1984 .

D -----

(7a) Consumption deflators for the seven largest countries are projected on average to grow fairly steadily at just below 5 per cent through to 1985, (7b) rather than accelerating slightly above that rate (7c) as implied in Economic Outlook 4. !-----

E -----! (8a) The risk of an inflation outcome above forecast rates in the near-term appears comparatively small, (8b) though some improvement in labour market conditions and a rebound in profits could arrest the deceleration of nominal wages in some countries. (9a) A striking feature of the recent desinflation is the significant restoration of non-wage income shares in 1983 (9b), and on the basis of provisional data, (9c) a sharp cyclical rise from depressed levels in the realised rate of return on capital stock. (10) For the seven largest countries, gross rates of return on capital stock in manufacturing in 1983 may have recovered to close their levels of 1981. !-----

-----! (11a) A continuing improvement in non-wage income shares is projected, (11b) taking average 1984-85

F levels back to those of 1972. (12a)
However, due to depressed capital
productivity, (12b) rates of return by
1985 might still be a fifth below those of
1972 and a third below those of the mid-
1960s (12c) when real interest rates were
much lower.

(From: OECD/84, p.48: Wages, Costs and
Prices)

2.3.3.4 Observations

This introduction is not uncommonly long. As Crookes has shown (Ibid.), as also Swales, scholarly journal-introductions can vary extremely in length. In spite of the fact that the thread of ideas can be captured using Swales's method of analysis (see demarcating lines) and also that some of the functions seem to recur across chunks of text (see for example D and F), none of these chunks seems to bear functions that are a reflection of Swales's moves.

The inadequacy of the Swales' introduction schema to apply to introductions of texts from Economic reports is predictable in terms of Swales's perception of genre variation. He notices that "opening sections are often called 'introductions' but they would appear to be quite differently organized in different genres such as scholarly papers, theses, projects and essays" (Swales, 1985:213). One would therefore be inclined to say that the difficulty noted in mapping the journal article introduction schema on these two texts confirms this perception.

The survey of genre-specific models of text structure using schema enables us to conclude at this stage that it is predictable by the theory of genre-analysis that the structure of texts pertaining to a genre could not be applicable to those of another genre. The attempt in the survey has been to provide one way in which evidence for this hypothesis can be gathered. Equally, the survey enables us to conclude that perhaps the texts on which the models have been applied belong to another genre and therefore they may be a need for an alternative way of accounting for the structure of Economics forecasting texts.

An attempt is made in Chapter Four to identify the schema but in the following sections of this chapter I review the notion of hedge as a construct for tackling the micro-level of the present analysis related to authors' strategies for modulating the predictions which form the key move in the forecasting schema.

2.4 Some Previous Work on Hedging, Condition and Attribution

2.4.1 Lakoff's position on Hedging and its derivatives

A number of words and phrases are made use of in speech as a deliberate strategy of vagueness or fuzziness of expression. Lakoff (op.cit) uses the term HEDGE to refer to those words "whose job is to make things fuzzy or less fuzzy" and produces a list of adverbs such as literally, virtually, mostly etc. and

phrases like sort of, more or less, loosely speaking etc employed in natural language as hedges (p.472).

In simple terms his argument, based on the logic of fuzziness, is that the **truth value of a proposition**, i.e the extent to which a proposition is true or false, can be measured numerically on a scale which ranges from 0 to 1 with values interspersed on the scale as 0.3, 0.4, 0.5 through to 1. The scale stands for the variable or concept against which the propositional truth value is checked.

Lakoff argues that it is difficult to predict at what value on the scale an utterance becomes true or false and contends that this difficulty of assigning an absolute truth or falsity value to a proposition is expounded in speech by hedges. He consequently proposes a theoretical framework, with defined criteria, to account for how such hedges function.

Lakoff's idea has been widely investigated in various contexts of natural language use. Brown and Levinson (1978) for example studied hedges in the framework of the theory of Speech Acts and of Gricean maxims. They produced a taxonomy of what they feel are commissive, assertive, explicative etc. hedges on the one hand, and manner, quantity, quality, relevance hedges on the other. Myers (1987) replicates this model on texts from written scientific articles and observes that hedging is a politeness strategy marking a claim or

any other statement which is provisional, pending acceptance in the literature and acceptance by the discourse community of readers. Loewenberg (1982:196) uses the term hedge to refer to adjectival, adverbial or parenthetical expressions that qualify, by restricting or extending, what is said in the utterances in which they occur and examines the pragmatic use of some of the language forms found in Lakoff's list, such as actually, really, literally, etc.. She contends that these forms are used in Discourse for emphasis or strengthening. Fraser (1980:349) looked at the functional use of some of Lakoff's hedges and found them to have a mitigating effect while Powell (1985) proposes that such hedges as literally can have both a descriptive and an interpersonal function.

A more significant contribution perhaps, from the ESP-oriented Applied Discourse Analysis point of view, is that of Prince et al (1982) who examined the use of hedges in the professional context of Paediatrician-Paediatrician talk.

Their findings, which they acknowledge to be based on the work of Lakoff (op.cit) and Robin Lakoff (1972), reveal two main types of hedges: APPROXIMATORS, which introduce fuzziness within the propositional content either by adapting a term to a non-prototypical situation, or by indicating that some term is a rounded off representation of some figure. SHIELDS, on the other hand, correlate with fuzziness in the relationship

between the propositional content and the speaker, in other words, to a fuzziness in the speaker's commitment to the truth of the proposition conveyed. The latter type of hedge, they contend, implies that the speaker is uncertain about what s/he says because s/he speaks from knowledge or beliefs acquired via plausible reasoning or that s/he has indirect knowledge but is attributing the belief to a particular other.

Rounds (nd) illustrates Prince et al's taxonomy in the context of academic writing though she points out that shields are there more a strategy used by academics to modulate their claims, since their reputation depends on the accuracy of claims they make about their findings. However Myers (op.cit) notes that as soon as a claim is properly introduced or is part of the literature, it becomes possible to refer to it without any hedging. Skelton (1988) argues that the approximator/shield distinction probably works only in the abstract, since in real language use, what is classified as an approximator may well function as a shield. He therefore chooses to make a distinction between proposition (the claim) and comment (the modulation of the claim) and proposes a teaching strategy for handling hedging in the ESP classroom.

2.4.2 Critique of Lakoff's Position

This generally favourable response to Lakoff's treatment of hedges has not been entirely free of criticism. Damereau (1977) for example, argues that variables (e.g Height) against which fuzzy concepts are measured (e.g tallness) are context sensitive in that, in the same social context (e.g English speakers), a statement like John is tall can still be false depending upon the context of reference. That is to say, it varies whether the John in question is a baby or a basketball player for example.

The same is true for such concepts as young/old, for which at 30 a football player for example is said to be old, while a politician is seen as young or even very young. For that matter, he further points out that Lakoff's theory only works for sets which are already fuzzy and that hedges do not account for modifying concepts which are not fuzzy. Neither does the theory account for adjectives which are indeed fuzzy but for which there is no readily apparent underlying variable against which they can be measured.

He argues :

"Consider e.g the adjective busy, for which it makes sense to say very busy, rather busy and the like. When we say Carl is tall, there is no doubt that the underlying implied variable, for which tall is a value, is height. However, when we say Carl is busy, the underlying variable is not at all obvious."
(1977:59)

Echoing Sadock's criticism of Lakoff, Wachtel (1980:202) thinks that it should be possible to formulate the function of approximation expressed by such forms as sort of, around etc. more explicitly. Fraser (op.cit:344) on the other hand argues that Lakoff takes only words to be hedges. It is interesting to add at this point that most of these words appear to be colloquial. Stubbs (1986:7) does not think that scales and numbers are essential in explaining vague and fuzzy concepts. He argues that by their very nature many utterances in which these concepts are likely to be found would be indeterminate on the scale.

Nevertheless, Lakoff's work on hedges, especially as extended by Prince et al, is extremely relevant to the present analysis, in so far as it provides a framework for accounting for features of modality in discourse. The difference in the present analysis, however, is threefold. First we are interested in features of modality in relation to economic predictions. Secondly, we account for them in terms of their communicative function and argue that these are exponents of **authorial strategies** of forecast modulation. In this respect, we go beyond the colloquial lexical items considered by Lakoff, to include any linguistic device employed by economic forecasters as a strategy to modulate the predictions they wish to convey.

The last difference to be noted is that we also argue that the various modulation strategies are indicative of some degree of authorial commitment to or detachment from economic predictions.

In the next two sections of this chapter, we survey two such linguistic devices, namely **condition** and **attribution** and show that they can also function as hedges.

2.4.3 Condition as an aspect of Hedging

It is possible to identify two types of conditionals, amongst many that one might find in various taxonomies from the literature of mainstream Linguistics, that are of central relevance to the present analysis : **Pure** and **Defeasibility** conditionals. The consensus view seems to be that the main exponent of conditionals is the IF-clause or Conditional margin. Longacre (op.cit: 102) defines this as a preposed or postposed part of the sentence which is somewhat readily detachable and which consists of a clause or sentence subordinated by some morpheme which means **IF**.

Pure Conditionals are held to be hypothetical. For Longacre, Hypotheticality is a notional structure which expresses a condition which implies nothing as to factuality of either member of the condition.

It simply states a relation between an antecedent and a consequent, i.e, the consequent does not follow unless the condition stated in the antecedent also holds. e.g If she's there, I will stay. In

such a condition as this, we are not told whether she is there or not. We are only told that my staying is conditioned upon her being there. (Longacre, op.cit:101)

Indeed, a number of studies investigating the semantic properties of conditional clauses found these to be contrafactual, volitional, dispositional and futurate. Many of these however are exemplified with constructed examples and sentences taken in isolation and are based on the study of If-clauses alone. Close (1980), Declerck (1984) or Haegeman and Wekker (1984) can still be quoted to illustrate this tendency.

Although such studies make up a formal framework for an understanding of conditionals in everyday English, they tell us very little about how conditionals textualise in specialist areas of language use. An attempt to this end has been made by Mead and Henderson (op.cit), who examined the form and function of the Conditional clause in Economics textbooks. But here again, their focus was on conditionals expressed solely by If-clauses.

While these studies consider pure conditionals on the grounds of lack of factuality in the propositions they carry, Halliday and Hasan (op.cit:135) contend that, looked at from another angle, a conditional clause can be modalized. They maintain

The form if he's right means 'let us suppose he's right then...', the condition may be expressed by non-finite (dependent) forms of verbs of cognition, such as supposing, assuming... Likewise, we can interpret if he's right

as a modality, similar to possibly he's right, in that case..., and again there is a modalized form for the expression of a conditional, should he be right...

Paraphrasing If he's right by such forms as possibly he's right, is equating conditionality with hedging, both of which should therefore be regarded as modulation strategies.

The second type of conditionals, which is of interest to the present analysis consists of conditionals that are used as a mechanism of proposition defeasibility. According to Levinson (1983:114 -115), an inference is defeasible if it is possible to cancel it by some additional premises to the original ones. He contends that the conditional form is one of the means of achieving this defeasibility and gives the following example:

- (a) John has three cows
- versus
- (b) John has three cows, if not more

The if-clause in (b) suspends what (a) implicates. Indeed, such an if-clause is a hedge since it is meant to modulate proposition (a).

Both of these facets of conditionals are taken up in the present analysis in so far as they are seen as modulation strategies. Unlike the previous works, however, conditionals are examined and exemplified in relation to economic predictions. Furthermore, we go beyond mere if-clauses, to consider any other form deemed capable of functioning as the conditional form

IF, as hinted by Halliday and Hasan and Longacre.

2.4.4 Attribution as an aspect of Hedging

Attribution has been dealt with in the relevant literature both at the level of discourse in general and in analyses of pieces of natural language occurring in particular contexts.

On a more or less general level, Longacre (op.cit: 129) draws a distinction between speech attribution, which is the attribution of an utterance to a speaker and knowledge attribution which is that of a whole cognitive content to a conscious subject.

Studies that have examined the use of attribution in particular discourse contexts, on the other hand, are more prolific. The consensus in this group of studies is that they all maintain the idea of truth value of proposition (also advocated by Lakoff to account for hedges) and the way in which the speaker/writer seems to be committed to or detached from it. Indeed, in this respect, it can be argued that these studies take attribution for a strategy of hedging.

Prince et al, quoted earlier, say it explicitly. They see attribution in physician-physician discourse as a hedging strategy whereby the speaker, having reservations about the truth value of a proposition, also distances himself from the belief in it, due to lack of direct knowledge. As an example, they argue that

an attributed statement such as According to Dr Smith implies 'not necessarily to the speaker' (Prince et al, op.cit:92). In a somewhat similar line of argument, Hoey (op.cit:103), looking at problem-solution patterns in scientific discourses and advertisements, contends that attribution suggests that the Response (solution) is not the author's own, and also that 'it is a means of assigning responsibility for the response'. He additionally identifies a number of signals by which attribution is captured in discourse. Bell (op.cit:109) assesses the importance of attribution in the context of news editing by arguing that it authenticates the truth value of the information conveyed. He maintains that attribution is a necessary device in newscasting to avoid falsification and to make audience aware that the information received is not second hand based. Tadros (1985:28), exemplifying with text drawn from an Economics textbook holds that Attribution is characteristic of Reporting in discourse. It is used both to signal authorial detachment from a propositional content (i.e truth value of a proposition) and to predict the writer's own involvement in the discourse, for example by Rebuttal. Like Hoey, she proposes signals marking attribution in discourse.

The view that attribution is a strategy of hedging is also shared by Al-Shabab and Bloor (1986) who, analyzing broadcast news text, see attribution as a means whereby the news editor not only shifts the

responsibility for the truth value of a proposition to a specified or unspecified source but also disassociates the broadcasting authority from indications of a partisan viewpoint.

But as Stubbs (op.cit:15) observes, truth value of proposition alone is not sufficient as a concept to capture the extent of Author Commitment. The difficulty in considering the concept of truth value alone for the extraction of the extent of author commitment in attributed economic predictions especially lies in the fact that unlike the nature of propositions in other contexts, the attributed prediction is additionally and in most cases immaterial at the moment of speaking or writing, making it difficult for the listener/reader to check the veracity of the proposition, as he decodes the message.. Therefore, to paraphrase Stubbs, we also need to consider the **source** of these attributed predictions and the degree of confidence the reporting forecasters appear to have in them.

2.5 Notes to Chapter Two

(1*) A more up-to-date account of the News Schema can be found in van Dijk (1988), which has come out too late for consideration in the thesis.

(2*) Categories 1 to 4 are obligatory. 5 is a bridge between obligatory and optional categories. 3 is said to be a particularly important category in this script. (Adapted from Zuck and Zuck, 1984a)

Chapter three: Issues of Research Methodology

3.1 Overview

There seems to be no available checklist of criteria in ESP for deciding on specialist text, as research data likely to be amenable to linguistic analysis. Bley-Vroman and Selinker (1984) express their concern when they contend that "there do not exist any well-established criteria for selecting and analyzing EST (inter-alia ESP) texts".

This chapter aims at discussing the methodology followed in the present research project for collecting, selecting and analysing the corpus described in the introductory chapter.

The chapter starts with an outline of criteria for collecting and selecting the corpus for the present research. Then follows a brief description of procedures followed for the linguistic analysis of the said corpus. The description is an account of how the results reported in Chapters Four, Five, Six and Seven came to fruition. The last part of the chapter discusses the use of Specialist Informants in ESP-oriented Applied Discourse Analysis as a device for validating the researcher's findings.

3.2 Criteria for Collecting the data

In the light of experience gained during the present research, it is possible to divide Collection

criteria into **Authenticity, Reputation, Accessibility** and **Variation**.

3.2.1 Authenticity

The data to be collected must be real life examples of language as used by the target professional community. We have here an instance of Forecasting by economists. The sample collected must not only be produced by forecasters, it must also exemplify the typical language of Economic Forecasting. The sample collected must therefore be referred to by its producers as **forecasts** and must be linguistically recognizable.

We feel that the sample collected for the present analysis is authentic and not simulated since it is produced by genuine professional bodies for the purpose of forecasting as part of their exercising that role which forms their *raison d'être*.

We read the following warning from each issue of the Abecor reports:

"The above reflects the personal views of the economists of the ABECOR member banks. Neither they nor ABECOR member banks assume responsibility for the above forecasts."

Such a warning coupled with the fact that sentences expressing forecasts of trends in interest rates are highlighted suggests that Forecasting is the primary intent of the Abecor reports on Interest Rates.

Statements referring to their own forecasts in Barclays

surveys, the World Commodity and the OECD Economic Outlooks are not uncommon. As a brief illustration we read:

- (1) (29a) Our forecast for US inflation this year, (29b) at 5%, (29a) implies only a gradual rise from current levels, (29c) if anything, (29d) we would place the balance of risks on the lower side rather than the upper side of this forecast. (Text 83)

The WCO/83 opens with:

- (2) (1a) The forecasts for particular commodity that follow (1b) are based on a gloomy view of world economic prospects in 1983. (WCO/83, p.1);

While other economists also overtly refer to the contents of the OECD Economic Outlook as forecasts.

"The OECD provides relatively detailed forecasts for the major OECD countries of which the UK is one... Forecasts are made on a half-yearly basis and have been published in OECD Economic Outlook since 1967." (Ash & Smyth, 1973:11)

It does not seem imperative to know the exact purpose of these reports and surveys. It does not seem to matter whether the reports are ACTION reports, i.e. compelling the intended audience to take some action in the light of the information imparted, or whether they are INFORMATIVE reports, i.e. merely communicating information. Specialist informant Robert Miller for example clearly stated that apart from Financial surveys which are specifically written for the City of London, other reports and surveys published by Barclays are for public consumption, though they do also write internal reports in which they advise their senior management

about matters pertaining to their business.

At the same time, Cathy George disclaims:

"it is difficult to issue forecasts people would act on." (Vol.II, p.136)

But here again, it is difficult to believe that the corporate authors do not have, as she says, "any axe to grind" (Vol.II, p.136) in the reports they make available for public consumption, for amongst the readership are some government and private institutions, central banks, companies etc. who can put the forecasts to their own good use. This view is also shared by Keating (1985:xiv) who states that Economic forecasting is nowadays central to government decision making and to corporate planning in many large firms in almost all major industrialised countries.

Therefore one can argue that these publications do have an influence on their readership that the corporate writers are aware of and consciously initiate. This leads us to consider the second criterion for collecting the data, viz the reputation of their sources.

3.2.2 Reputation

Reputation has to do with the credibility enjoyed by a forecasting body with regard to other forecasters. It has to do with the extent to which peers or the readership as a whole rate the forecasts released by a given source as well as the extent to which this source

is renowned in Economic Forecasting. In other words and to borrow Bley-Vroman and Selinker's expression, reputation ties in with the extent to which the texts collected are **valued** by the readership.

It is felt here that the sources from which data for the present analysis has been collected are reputable sources in Economic Forecasting. For one thing, they all have a world wide coverage. For another, there are no better known forecasts influencing various governments in the Western world than those released by the OECD.

The British Chancellor of the Exchequer for example, quoted the OECD in order to persuade the British people when he made his comments about the Budget Speech of 19 March 1985 that the economy of Britain under the Tory government was doing well and forecast to grow in the following year in spite of the effects of the then coal miners' strike.

"The British industry today is strong, prosperous and on an upward path... if you look at our growth of output beside that of our competitors. From 1970 to 1982 we were right at the bottom of the Common Market league table. In 1983 we were top. And despite the coal strike we were third last year. And this year, the international forecasts of the OECD think that we will be top again. (My emphasis)
(1*)

Moreover, Keating (op.Cit:107), in his recent book on the production and use of Economic Forecasts, clearly recognizes that the OECD is one of the most influential sources of forecasts which are much used by other

economic forecasters, such as the London Business School and the British Treasury Department, as sources of authoritative information.

The Economist Intelligence Unit is an established private forecasting body providing consultancy and forecasts about over 165 countries, while the reports and surveys published by Barclays Bank must be seen to be as credible as any other reports published by established British Banks (e.g Bank of England, Lloyds etc) or by London Stock brokers (e.g Philip and Drew, Simon and Coates etc.).

3.2.3 Accessibility

Accessibility has to do with the extent to which and the ease with which the researcher can get hold of the material to be analysed, together with the possibility for the researcher to get in touch with the producers of these materials, as for example when the researcher finds some of these to be not fully understandable.

It is therefore possible to break the criterion of Accessibility down to **material - accessibility**, **content - accessibility** and **people - accessibility**.

With regard to the data at hand, most of it has been sent to us free, with Barclays being especially generous. A letter was written to the bank's Economics Department whose Reports Editor found it best to add us

to a mailing list. The rest of the material (i.e. the WCO/83 and the OECD/84) was found in the University's central library. Secondly, and as discussed elsewhere in this chapter, two of the producers of the materials considered for analysis were prepared to make themselves available for consultation. This is a privilege that cannot be overlooked in this world of extremely busy and time-conscious professionals. Apart from some initial problems with specialist terminology, the materials collected were quite readable with recourse, when necessary, to a dictionary of Economics or to subject expert informants who kindly supplied us with a glossary of specialist terms frequently used in such reports.

3.2.4 Variation

This criterion forms a bridge between collection and selection criteria and has to do with the extent to which the data collected or selected comes from different sources for the purpose of generalisation. Furthermore, taking care to vary the sources of material to be collected and selected may help the researcher to avoid the pitfall of drawing conclusions that may be indicative only of a 'House style'.

It is therefore clear that the sources of the data collected for the present analysis are by no means monolithic though not all the data collected was actually selected for close analysis.

3.3 Criteria for Selecting the corpus

Criteria for selecting data for quantitative linguistic analyses such as the frequency of occurrence of a given form etc. are known and usually subordinated to statistical approaches but few works have proposed guidelines for qualitative analyses.

Three criteria for the selection of the corpus for the present analysis were identified: **Universality**, **Text length** and **Representativity**.

3.3.1 Universality

We have shown how the data collected varied not only in its sources but also with respect to its physical features. We have shown, and summarised in **Table 4**, the different parts of surveys and reports collected. Because we are seeking generalisations across a set of similar texts, a decision had to be made to select for analysis not only what could be manually manageable, that is to say not excessively long, but especially those particular sections which were omnipresent in the sample from all four sources.

This criterion led us to consider mostly texts from the **sector review** which was found to occur universally, as expounded in table 4.

The **Overview article** would have been considered but for its excessive length, especially in WCO/83 and OECD/84.

The similarity and recurrence of titles in sector

Table 4: Feature Matrix of Data Base sections

Parts Sample	Summary	Overview Article	Sector/ Country Review	Other Article
Abecor Country Reports on Interest rates: Developments and Prospects	+	-	+	-
Barclays Commodity surveys	-	-	+	-
Barclays International and Uk - Economic surveys	+	+	+	-
Barclays Industrial surveys	-	+	+	-
OECD Economic Outlook	+	+	+	+
EIU's World Commodity Outlook	+	+	+	-

NOTES: + = yes
- = no

reviews from different sample data are further elements that add to the criterion of the **universality** of material selected.

3.3.2 Text Length

Text Length has been a major criterion in deciding

which text should go in the corpus and which should not. The shortest text chosen is 163 words long (text 91) and the longest 1806 words (text 61), respectively below and above which limits a text was excluded from consideration. Such a selection of short and fairly long texts has been decided upon to achieve complementarity. This factor is especially important given the fact that many Schema-using models are based on the analysis of short and partial texts (e.g. Rumelhart, op.cit; Swales, op.cit & 1986c).

3.3.3 Representativity

The criterion of Representativity ties in with that of Authenticity in that the corpus selected should genuinely exemplify the target model of language use. Representativity has also to do with the extent to which conclusions drawn from the analysis of a corpus are applicable to texts which may be of the same genre but which have not been included in the corpus. The forecasts contained in the texts analysed were real - life projections and up-to-date at the moment of data collection (i.e 1983 - 1984).

Although it is known that it is virtually impossible to isolate all the instances of language as used in a particular professional setting, Representativity also has to do with the word stock of the corpus.

A corpus of nearly 50,000 words, as that analysed here is quite manageable manually and can be argued to be sufficient for the purpose of a qualitative linguistic analysis. Furthermore, and as shown by Smith (1985:233) and Kurzon (1985), there appears to be no consensus amongst discourse analysts as to the number of words a corpus should have in order to warrant viable generalisation.

Smith considered only 8 texts of a thousand words each - i.e 8,000 words, pertaining to one subject area - Recombinant Genetic Research - to observe the number of associations of linguistic features with particular characteristics of texts. Kurzon selected 24 texts of about 2000 words each (i.e 48,000 words) from the million-word Lancaster/Oslo-Bergen corpus of written Business English, to prepare for a computer-based study of the occurrence of text deixis in the entire corpus.

It may therefore be argued that whatever observations are made on the basis of the word stock of the corpus for the present analysis also hold for similar instances of the language of Economic Forecasting in English, not pertaining to the present corpus.

3.4 Procedure for the Analysis of the Corpus

After the selection of the operational corpus has been made, the number of words in each text has been

counted in order to have an idea of the word stock making up the entire corpus. For the purpose of counting, a word in this context is seen as any distinctive lexical entity conveying a concept.

Therefore, a word refers to an individual lexical item such as inflation, a group of hyphenated lexical items such large-scale or numerals such as 1984/85 in the expression 1984/85 season.

Then, all the 100 texts pertaining to the operational corpus have been divided into numbered sentences and where applicable, each sentence into clauses. The reason for this breakdown is to make referencing easy and thus avoid the cumbersome task of reprinting a whole text every time an example is needed. The reader of this thesis can therefore easily look up the linguistic context in which a particular quotation occurs in the appropriate text to be found in **appendix 2**. This appendix is supplemented by **Appendix 3** in which the meanings of some of the acronyms found in these texts are spelt out. Another, perhaps more important, reason is that the clause has been found to be the minimal linguistic unit likely to contain a proposition or a set of propositions bearing some semantic relations. This view is also shared, amongst many others, by van Dijk (1988:31).

The main criterion for defining a clause has been the verb or predicate. Every clause is thus assumed to contain a verb. The verb may be finite or non-finite.

The latter category includes verbs in ing, ed, and to-infinitive forms.

At times, however, the verb may be deleted but recoverable in the discourse. This is the case in example (3) for instance in which proposition (2b), which has no apparent verb on the surface, is still counted as a clause for the simple reason that the verb stood, has been elliptically deleted but can still be restored in the clause without affecting the meaning of the sentence in which the clause is found.

- (3) (2a) In May, the three months' interbank
 rate stood near 10% (2b) and the long-term
 government bond rate at 12%. (Text 2)

Also counted as clauses are instances where there is no obvious deleted or implied verb, but which contain expressions that could be seen as paraphrasing a verb. Consider the following pair of sentences as illustrations.

- (4) (20a) Assuming unchanged policies, (20b)
 GDP growth may continue at about the same
 rate in 1985. (Text 46)

versus

- (14a) On the assumption of a continuation
of present policies, (14b) GNP growth in
1985 is currently forecast at 4 per cent,
with a further slowing of inflation and a
reduction of the current account deficit
to \$1 billion. (Text 53)

In this example, (20a) is definitely a clause, defined by the non-finite verb assuming. Although there is no verb, (14a) is still considered a clause on the grounds that the expression on the assumption of is

paraphrasable by the lexeme assuming, which is a verb. However, it must be understood that this breakdown into propositions has no theoretical significance for Clause Analysis and is merely for ease of reference.

Two lines of attack have been adopted to tackle the linguistic analysis per se of the corpus. For the analysis of the schematic structure, relatively short texts have been considered first and the results obtained probed further on longer ones, using an eclectic method of analysis.

Swales' move-analysis approach has proved successful for the analysis of the schematic structure of relatively short texts with a simple text structure, while the system of network representation advocated by Davies et al (op.cit) and van Dijk (1985) has been found helpful for the analysis of texts of considerable length and of relatively complex overall structure.

For the analysis of authorial strategies of prediction modulation however, all the predictions occurring in the operational corpus were first of all isolated. Then the particular place in the text structure where these predictions tended to occur most frequently was isolated. The next step was to look at the form used by the writer to modulate the predictions and examine, by looking at their immediate discourse context, whether they have been used for any particular purpose. This purpose, as perceived by the researcher,

has been given a functional label. Interestingly enough, each function appeared to be fulfilled by a consistent type of modulation. Each type is then thoroughly examined and discussed separately.

At times, in order to functionally group particular linguistic forms, the technique of paraphrase has been used. This is especially the case in the discussion of the authorial strategy of modulating prediction by condition specification, found in chapter Five.

Here the paraphrase technique is referred to, to test whether a given marker belongs to a given semantic group. This is done by checking whether a given marker can be paraphrased by an IF construction in order to test whether the substitution maintains or alters altogether the meaning of the prediction. The implication is of course that if the test is positive, i.e. if the substituted element does interfere with the meaning of the sentence, then the difference between the two linguistic elements is fundamental. The converse would mean that the difference is merely stylistic.

In this analysis, it is found that the difference noted between markers of different categories of conditional is fundamental whereas that noticed between those pertaining to a given category is stylistic.

As such, paraphrase as a method of linguistic analysis is related but dissimilar to the acceptance of the term as a device for analysing rhetoric (Urquhart,

1982; Longacre, op.cit: 114 -124; Hoey, 1983; Winter, 1984).

Further linguistic devices used in discussing modulation strategies derive from the concept of entailment, which says:

"A semantically entails B, if every situation that makes A true, makes B true"
(Levinson, op. cit: 174)

Both the scale of certainty (Holmes, 1983) and the scale of logical strength (Geis,op.cit) which originate to some degree from the concept of entailment (as outlined in Chapter Six), have been referred to to work out the subtle differences in author's pragmatic choices of forms used to moderate the force of predictions.

Because we are speaking of authorial strategies, it is easy to agree that the vantage point of the analysis has been that of the author. But, as Ard (1985) cautions, we have not lost sight of the reader since we do at times refer also to the "informed reader" who must work out for himself the implicit message occasionally encoded by the writer. This is how Specialist Informant Cathy George portrays the informed reader expected to read their economic reports:

" anybody intelligent who's interested in receiving them... anybody who's a scientist of any sort or an academic..."
(Vol.II, p.145)

A further methodological point relates to exemplification in the thesis report. In each chapter, examples run from (1) to (n). The quoted extracts bear

their number of corpus reference.

It has been found better to start numbering examples afresh at the beginning of each chapter because although all chapters are related, each focuses on different aspects. Where the same extract is analysed in different chapters, it is likely to be from different angles of approach and for different reasons.

On the whole, the linguistic analysis reported in the thesis has been validated at various stages against the views of Specialist Informants (SI). The following section surveys the use of SI as a research method in ESP and shows how it has been used in the present research project.

3.5 Use of Specialist Informants

The use of Specialist Informants may be described as a research tool in ESP-oriented Applied Discourse Analysis in which the Applied Linguist systematically consults a specialist in a field other than his own, in order to obtain expert help or advice in processing the texts he has to analyse.

Although it has been customary to use informants in Linguistics and Ethnography for data gathering, the initial use of experts as informants in ESP is usually attributed to Selinker (1979). He found that ESL teachers needed to make use of subject-matter specialists in order to understand "the English language

scientific textbooks and professional articles... students are required to grapple with" (p.190). Ever since, the use of SIs has been so increasingly resorted to that Bley-Vroman and Selinker (1984) have put it forward as one of the necessary steps of the 'pre-requisite phase' in their proposed research paradigm for rhetorical-grammatical analyses' of ESP texts.

The Research strategy they advocate consists of the following steps:

- 1) Identify a practical problem area
- 2) Carry out a 'quick and dirty' analysis
- 3) Define explicit (initial) assumptions with criteria in the end
- 4) Select highly-valued text
- 5) Consult Subject Specialist Informants

This attempt to formalise the practice of referring to an SI for the purpose of analysing ESP data is perhaps a sign, not only of a lack of available supportive methodology in ESP Applied Discourse Analysis, but equally of a consensus amongst ESP practitioners concerning the potential value of making use of expert opinion in the interpretation of various linguistic features peculiar to specialist texts. Rounds (1985a:129) shares the opinion that SIs, 'if used in a principled way, can be invaluable in determining the appropriateness and validity of an analysis of text; that is, whether the conclusions reached by the ESP researcher are technically sound and the interpretations and points of emphasis reasonable.

While the principle of using subject matter

specialists in the course of their research has been adopted by many, ESP practitioners have differed in their exact use of SIs. It is possible to see three different trends all deriving from Selinker's original suggestion. These are:

1. ESP researchers who made use of the SI as an **authority** during an on-going process lasting over a considerable length of time;
2. ESP researchers who have used SIs as **partners** in joint ventures; and
3. those who have used them merely as **testees**.

The first group consists mainly of doctoral students who found, in the course of their research, a need to consult a specialist in consuming and producing the types of text they were engaged in analysing.

Bhatia (1983) for example, while investigating the role of qualifications in English Legislative writing, found it necessary to frequently consult a British parliamentary counsel involved in the drafting of Acts of Parliament, in order not just to validate his analytical findings but also to formulate, modify and confirm his hypotheses. He does not however specify the number of contact hours he had with this SI. Rounds (n.d, 1985b) consulted both a psychiatrist and a geologist in order to "confirm some of her hypotheses" concerning hedging in academic discourse while Pettinari (1983,1985) used medical residents in Surgery both as a source of data (post-operative surgical reports) and as

SIs helping her to interpret them. She held 3 hours of formal contact with the SI over a period of 9 months.

Another group of ESP practitioners have found it best to make statements about various aspects of LSP data only in conjunction with relevant subject specialists. This is typified in the trend for joint articles by Applied Linguists with Economists (Mead & Henderson, op.cit; Hewings & Henderson, op.cit), Scientists (Tarone et al, 1981) or Paediatricians (Prince et al, op.cit).

Mead and Henderson for example looked at different functions of the conditional form IF in Economics textbooks. The role of the SI (Henderson) is not clearly stated but one may gather that he endorsed the findings that the Conditional Form IF performs a range of functions in Economics textbooks.

Tarone et al analysed the use of the passive in Astrophysics journal articles. The SI (Icke) provided the astronomical interpretation of the text and outlined the overall rhetorical structure of the papers. The writers acknowledge that the SI's "knowledge of the subject matter was absolutely essential to their analysis of the rhetorical structures of the papers" (p.125).

Prince et al were interested in the way physicians hedge their language when they talk to each other in after morning round clinical sessions. In this case, the SI (Frader) explained the sociolinguistic background of

the data, cross-checked the transcripts of recorded data and endorsed the findings that when talking to each other, physicians experience a high degree of uncertainty in the medical-technical domain expounded in a frequent use of hedges. The parallel between this type of use of an SI with Team - Teaching in ESP (see British Council, 1980) is evident.

The last group is that of ESP Practitioners who have made use of SIs as guinea pigs. ESP researchers in this group have confronted on the one hand, the views of language teachers with those of subject specialists or teachers of other subjects in order to investigate how comprehension can be measured using informants and texts (White, 1981; Zuck & Zuck, 1984b). On the other, they have compared the views of scientists with those of other scientists who have authored texts under analysis (Huckin & Olsen, 1984).

Huckin and Olsen aimed at cross checking and also perhaps validating the scientists' and the author scientist's interpretations of rhetorical structures and other various language forms in order to test the reliability of the former's opinion.

Though Huckin and Olsen did ascribe the discrepancies found between their informants solely to authorial knowledge, their findings that work with a SI is time-consuming and that no SI is likely to provide an optimally useful interpretation of any text, together

with their recommendation that the best SI one was likely to find will be the author of the text being analysed, initiated some criticism of the viability of SI as a research device.

Swales (forthcoming) for example, questions the reliability of the author's viewpoint arguing that Literary Criticism has shown that authorial viewpoint is likely to be influenced by such subjective features as personality, allegiance, status etc. He further cautions us that while it is true that without SI, ESP researchers may be in danger of "not knowing what they don't know", an over-reliance on SI may well produce the equally serious if opposite danger of analysts believing all that they hear.

A possible reason for such strong criticism may be that the SI has often been used as an exclusive means of data interpretation and also that frequently only a single expert has been approached. Such an attitude can easily allow room for people to cast doubts on the credibility as well as the representativity of one single individual SI's opinion.

Perhaps one way to escape such criticism is, in addition to ensuring that more than one expert is approached, to use the SI's views only in conjunction with other means of data gathering and interpretation. A cross checked view of the SI and these other means would supplement the researcher's own linguistic analysis, in most cases supported by textual and/or

statistical evidence.

In the present research project, however, the SIs have been employed in ways overlapping with all the three modes of use described above.

The SIs approached were an editor of most of the economic reports considered for analysis and a practising economist involved in forecasting who both work for the Barclays Banking Group.

The SIs have been approached formally in two stages, referred to here as the **exploratory** and **validatory** stages. Their views were cross - checked, mostly in the validatory stage, with those of other experts in Economics and language of Economics. These other experts were essentially two textbook writers of English for Economics, 1 lecturer in Economics, 1 Economics librarian with a first degree in Economics. The SI's views were additionally validated against those of students in Linguistics and linguists or English language teachers whose native language is English.

3.5.1 Stages in SI Consultation

3.5.1.1 Exploratory Stage

During this stage, initial contacts were made with the SI both formally and informally through letters and phone calls.

A letter was sent to the Economics Department of

Barclays Bank International, the institution which publishes most of the reports and surveys considered in the analysis. The letter was referred to the Editor who was happy to answer the Researcher's queries.

The editor was not an economist but rather some kind of a technical writer, quite versed and experienced in putting together into a handy publishable form the various individual reports that native English speaking as well as Non-native English speaking economists scattered throughout the world send in to Barclays. The editor was then deemed the right person to approach for the purpose of the present research since she could clearly be considered as the second writer of the reports. In her own words, she edits the reports

"fairly heavily. We don't alter the facts or the view point on the country or anything like that... So it's very heavily edited at this stage..."

(Vol.II, p.134)

The tool used for gathering information and cross-checking the researcher's preliminary findings with the editor was the **Structured Interview**. This is a well-known instrument in various aspects of ESP research in general. Speaking of 'English for Economics' in particular, Wall (op.cit.) for example has used it as the exclusive means for gathering input data that helped her construct a pre-sessional course for Economics Postgraduate students at the University of Lancaster.

In the present analysis, however, it is used as a subsidiary technique for getting specialist reaction to

the analytical findings of the researcher, the main instrument being the linguistic analysis per se.

The most important questions outlining the structured interview were sent in advance to the editor in order to give her a chance to organise her answers. It was also deemed better to do so in order to avoid raising unnecessary matters during the interview.

The questions were mainly open-ended and worded in such a way that they could keep the editor talking for a useful length of time. However, during the interview itself which lasted for an hour, we had the opportunity of reformulating and expanding questions where necessary.

The interview took place in a relaxed atmosphere and was taped. It was later broadly transcribed and analysed, and some of the informants' ideas were later incorporated in the preliminary linguistic analysis. The broad transcription, which was checked by an educated native speaker of English, is justified by the fact that the Researcher was at this point only interested in the content of the answers and not in features of spoken discourse such as dysfluencies.

The questions were varied. Some pointed to the nature of the data under investigation, the motivation behind their publications as well as the intended audience. Others focussed on the discourse, stylistic and grammatical features of the reports. Another

category of questions was related to the 'Economics' side of the reports. While the editor competently helped with regard to the communicative questions in general, she generously brought in a colleague of hers, a practising economist, to answer some of the subject-matter questions.

The economist was happy to deal with these but also suggested that some of the questions which were of general interest to economists could equally well be handled by an Economics lecturer.

Most parts of this interview are found in **Appendix 4**. The whole interview could not be reprinted due to its excessive length. Only those parts that have been used to support an argument in the thesis have been reprinted in full in order to provide the context in which they were uttered.

3.5.1.2 Validatory Stage

The validatory stage was concerned exclusively with elucidating matters related to linguistic choices for forecasting in Economic reports. As initial difficulties concerning concepts and methods of forecasting were clarified with the SI during the exploratory stage, effort at this stage was directed to two main linguistic matters.

Informants, both subject specialist and non-subject specialist who are native speakers of English, were approached to find out

- i) their assessment of authorial commitment to or detachment from propositions expounded as economic predictions;
- ii) their assessment of the chances of fulfilment of such typical propositions;
- iii) their assessment of the extent to which the context of occurrence affected the strength of propositions.

These objectives were set to support or disprove the Researcher's own observations of the pragmatics of forecasting in economic reports. To achieve them, the informants' views were sought through a **questionnaire**, a sample of which is found in **Appendix 5**. Copies of the questionnaire sent to the SI had different covering letters since the degree of acquaintance the Researcher had with each of them varied. Those handed to other informants, notably second year undergraduate students of Linguistics, English language teachers on postgraduate training and lecturers in Linguistics had no covering letter. It was found easier to approach them in a face to face situation by the Researcher himself and through two lecturers in Linguistics who volunteered to help. During the encounter with the informants, the Researcher or his attorney provided any necessary background information to the questionnaire.

In the questionnaire, a text was given (Text 17 of the corpus) in which all the features of modality marking the force of forecasts were underlined. With reference to the value of these modal expressions in the text, respondents were asked to assess the writer's

point of view as to the chances of fulfilment of the forecasts and the extent to which the writer seemed committed to or detached from the posited forecasts. They were also asked to consider a number of propositions in isolation.

To answer, they had to express their judgement on two scales ranked each from 1 to 3. The numbers on the first scale stood for possibility (1), likelihood (2) or certainty (3). On the second scale, the numbers were proportional to the degree of authorial commitment viz, (1) for weak, (2) for moderate and (3) for strong.

It was deemed necessary to seek other people's opinion in this matter to get some sort of a consensus on the use of modality in the professional context of economic forecasting. After all, modality in Linguistics is known to be a debatable area and an issue calling for prolonged fieldwork (Stubbs, op.cit). Specialist Informant Cathy George rightly remarked that it was difficult to make a definite statement on this matter, a view echoed by another economist who commented "What a difficult questionnaire" on his answer sheet.

The items of Question III especially, exemplified the different strategies of forecasting isolated in the linguistic analysis viz, plain, attributed, hedged or conditional. In the following question (Question IV), informants were given a set of reasons claimed by the Researcher to govern the use of modality in forecasting.

They were asked to either agree or disagree with the reasons put forward or simply to abstain. In either case, they were expected to give further reasons in the light of the sample expressions of forecasting found in the questionnaire.

In the last question, they were asked to assess, from their knowledge, the extent to which the use of modal expressions in Economic Forecasting differed from that of other specialities as well as from everyday English. This question was particularly useful in order to confirm or not the claim that modals are sensitive not only to linguistic context but also that their use varies across disciplines. Finally, the informants were invited to make additional comments about the language of forecasting in general. Otherwise, the questionnaire was set in layman terms since many of the informants were not familiar with Linguistics terminology. The results obtained have been incorporated with acknowledgement in the linguistic analysis.

3.5.2 Selecting an SI in a Professional Setting

The use of an SI in this research project is motivated by the fact that the Researcher is neither a native speaker of English nor a trained economist. Though he had some English teaching experience with francophone undergraduate students of Economics, the Researcher could not rely entirely on his own intuitions

in analysing the schematic structure and sorting out the pragmatics of forecasting in economic reports. Therefore, it was virtually imperative to approach 'good' and 'cooperative' informants who would be willing to help when needed.

Several characteristics of a good subject specialist informant have been laid out by Selinker (op.cit:213) and Bley-Vroman and Selinker (op.cit:3), but they all seem to be geared towards an academic setting: a language teacher consulting a subject specialist teacher. Apart from the fact the SI should be a native speaker of English who is trained and competent in the relevant discipline, the rest of the characteristics these authors identify point to a regular Science or Technical Subject teacher. Additionally, with the exception of Bhatia (op.cit), all the other aforementioned ESP researchers selected their SI from an academic institution. Bhatia summarised these criteria by stating that a good Subject Specialist Informant needed to be either an informed reader or the author of the text being analysed but here again provisions are not made for the selection of more than one SI.

It may be suggested that good SIs from professional institutions should be:

- i) more than one individual
- ii) native speakers of the target language
- iii) real corporate writers of the material

being analysed

- iv) aware of difficulties subject specialists have in writing professional texts in a language other than their own
- v) knowledgeable about matters related to their professions as a whole by virtue of either or both their training and professional experience.

Finally, it must be added that whatever the calibre of SI consulted, it is worth cross-checking the statements they make.

3.6 Note to Chapter Three

- (1*) Broadcast comments on the Budget Speech made by the Chancellor, the Right Honourable Nigel Lawson, M.P, on behalf of the government on 19 March 1985 after evening news bulletins. (ITV, 19.3.85)

Chapter four: Schematic Structure of Economics Forecasting Text

4.1 Overview

The review of the relevant literature on SCHEMA has exposed how difficult it can be to apply available genre-specific models of text structure, especially Zuck and Zuck's forecasting Script, to the analysis of the schematic structure of texts drawn from economic forecasts. Where possible, reasons for the inability of such models to account for the structure of texts pertaining to the corpus for the present analysis have been given.

The overriding objective of this chapter therefore is to identify the schema for forecasting as enacted in economic reports and surveys. The schema results from an analysis of the schematic structure or overall text structure of a hundred texts of varied length, reviewing components of western country economies as well as sectors of financial and commodity markets.

The chapter starts with an outline of patterns of the schematic structure of these texts. Then follow, a brief introduction to the model for analysis, a description of the categories of the schema and a discussion on the ordering of both the categories within the schema and of schemata as they are realised in the real life specialist discourse of economic forecasting in English.

4.2. An outline of patterns of schematic structure in Economics Forecasting Text

A linguistic analysis of the schematic structure of the texts which discuss particular sectors of commodity (e.g. Jute) or money markets (e.g. interest rates), or simply particular sectors of economy (e.g. inflation) and which are found in economic forecasts published in the form of a report or a survey, has been carried out. The analysis has revealed that a typical Economics forecasting text displays an overall structure with the following common pattern:

1. a part in which the author describes recent developments of an economy or market;
2. another part in which the author attempts to give reasons for why developments should have been so rather than otherwise;
3. In most cases, then follows a third part in which the author examines whether the factors given as explaining recent developments still underly the present situation or whether additional factors have come into play;
4. Then comes a part in which the writer gives predictions as to likely developments in the foreseeable future.

In many cases, nothing follows this part, but in some, occurs another part in which the author examines possible factors that may hinder the materialisation of

his prediction. Also, in a number of instances, all the above parts are preceded by one in which the author corrects a forecast that was released in an earlier report or survey.

An important notion in capturing these parts is that of **topic**. This is defined in the present analysis simply as "what the text is about".

(1*)

The topics dealt with in the corpus refer to either market items or items of country economy. The first type covers items of financial markets such as Interest rates and items of commodity markets such as the production, consumption and prices of raw industrial or raw agricultural products like copper or coffee or else refers to the production or sales of manufactured products such as clothing or automobiles. Items of country economy on the other hand encompass such economic variables as Inflation, Output and Demand, Current Accounts, (Un)Employment, Investment etc. and are examined in the texts either within a given country (e.g Belgium) or across a group of countries such as the major industrialised countries in the world.

But at this point let us first illustrate the previously described broad outline of the schematic structure with the following texts taken from the four sources of the corpus viz Abecor, Barclays, OECD and EIU.

(1)

- I ! (1a) Since the beginning of April, interest !
! rates have shown a fairly pronounced decline !
! (1b) though they remain at a high level (1c) !
! compared with abroad. !
!
- II ! (2a) The declining trend can be traced to !
! more abundant liquidity conditions, !
! weakening demand for bank loans and the !
! adoption of a less restrictive stance by the !
! monetary authorities, (2b) on account of the !
! stagnation of business activity in recent !
! months. !
! (3a) The PSBR target was over-shot last year, !
! (3b) the actual PSBR rising from 13.3% of GDP !
! in 1981 to 15.2% in 1982. (4a) There was !
! apparently no improvement in the early part !
! of this year (4b) when monetary policy was !
! also eased (4c) and the expansion of the !
! monetary base accelerated. (5a) The rate of !
! growth of the monetary indicators also !
! increased - especially M2, (5b) in part !
! because of a marked shift from Treasury bills !
! holdings by businesses and individuals into !
! bank deposits. (6a) The government has put !
! some pressure on the banking system, (6b) in !
! an effort to obtain a reduction in the cost !
! of money (6c) which is judged necessary to !
! revive the economy from the recession. (7a) !
! The discount rate was cut by a full !
! percentage point in mid-April to 17%, (7b) a !
! move which was soon followed by a further !
! equal reduction in the prime rate to 18.75%. !
! (8) Other lending rates declined too, !
! together with the yields of most money market !
! instruments. (9a) The weakening trend was !
! soon transmitted to the capital market, (9b) !
! where the demand for new issues exceeded !
! supply, (9c) owing to the recent re- !
! introduction of the withholding tax on !
! private issues. (10a) Another factor (10b) !
! explaining the somewhat easier money market !
! conditions (10a) was the sharp improvement !
! in the overall external position of the !
! country (10c) registered in April. (11a) !
! Unexpectedly, a \$1 billion surplus was !
! posted, after a \$ 1.4 billion deficit in the !
! first quarter of the year, (11b) thanks !
! chiefly, to larger-than-normal receipts from !
! tourism. !
!
- III ! (12a) The resignation of the Fanfani !
! Government on 5 May, and call for new !
! elections on 26-27 June has created an !

	! uncertain political climate and a power !
	! vacuum, (12b) which may last through the !
	! summer. (13) During this period, fiscal !
	! policies are likely to be relaxed further. !
	! (14a) Nevertheless, the external position is !
	! likely to remain strong during the coming !
	! months, (14b) mainly for seasonal reasons. !
	! _____ !
IV	! (15a) A further weakening of all interest !
	! rates during the summer is possible, (15b) !
	! followed by some hardening in the latter !
	! part of the year, (15c) when the new !
	! government is in the saddle. !
	! _____ !
	(Text 5)

In this text, it is possible to delineate two major boundaries within which distinctive parts can be observed. We have on the one hand a block of information stretching from propositions (1a) to (11b) in parts of the text numbered I and II, which in terms of time dwells on a recent past. On the other hand, we have another chunk spanning propositions (12a) to (15c) in parts III and IV which appears to direct the reader from the present to the immediate and distant future.

In the first block, the drift of authorial argumentation moves, in propositions (1a) to (1c), from an account of the trend in interest rates in the recent past - which is that of decline - to an attempt by the author, in propositions (2a) to (11b), to explain the reasons for the trend he has just portrayed.

The explanation is lengthy. The author first summarises, in propositions (2a) and (2b), all the reasons he could give about the previous trend in interest rates in Italy before expanding on each of these reasons in propositions (3a) to (9c). Propositions

(10a) to (11b) on the other hand make up a further explanation given by the writer to account for the trend which he has identified.

For example, the author substantiates in propositions (3a) to (5b) the idea of "abundance of liquidity conditions", while he expands that of "a less restrictive fiscal policy by government authorities" in propositions (6a) to (9c). Both ideas, as well as that expressed in the clause "a weakening of demand for bank loans" he gives as the cause of the decline in interest rates.

The second block of information identified, viz that stretching from propositions (12a) to (15c) looks ostensibly different from the first. Propositions (12a) to (14b) tell us what the author views as underlying the trend in interest rates in Italy at the moment of writing. A mixture of factual information and of the author's own opinion is found here. We have on the one hand the prevailing political climate, expounded in the text by proposition (12a), and, on the other, the author's own assumptions found in propositions (12b) to (14b) about the implications of this factual information. Here, we also note that some of the influencing factors are apparently weighed one against another by the author, such as fiscal policies in proposition (13) and external position in proposition (14a).

It is only after this reasoned argumentation that the writer cautiously proposes his view of the likely course of interest rates both in the immediate and distant future, expounded in the text respectively by the words summer and in the latter part of the year, in propositions (15a) to (15c).

It should be noted in passing that the idea of "immediate" and "distant" futures alluded to here may be equated with the concepts of "short-term", "medium" and "long-term" forecasts in Economics. However, the Economics metalanguage has here been avoided because the exact period of time covered by the terms short, medium and long seems to vary in the corpus from one forecasting body to another.

Table 5 shows this variation, calculated by identifying the time assigned to the fulfilment of the trends predicted in the analysed texts.

Table 5: Variation in the Forecast period across the sources

! Source	! Immediate future	! Distant future	!
! Abecor	! 0 - 3 months	! 3 - 6 months	!
! Barclays	! 0 - 12 months	! 12 months+	!
! EIU	! 0 - 12 months	! 12 months+	!
! OECD	! 0 - 6 months	! 6 - 18 months	!

The basic structure depicted above seems,

interestingly, to be characteristic not only of texts drawn from the Abecor reports, but also of texts from the other three sources. Consider for example the following text drawn from Barclays Commodity surveys.
(2*)

(2)

I	!	(1a) Western world consumption of nickel !
	!	increased by an estimated 6% last year, (1b) !
	!	the first rise since 1979. !
	!	! (2a) This was !
II	!	largely the result of a recovery in world !
	!	stainless steel production (2b) (see Graph 6) !
	!	(2c) which was led by an upturn in demand !
	!	from the consumer durables and automobile !
	!	industries (2d) combined with an end to !
	!	producer destocking. !
	!	! (3a) As the recovery !
III	!	gathers momentum (3b) and demand for !
	!	stainless steel broadens (3c) to include the !
	!	capital goods sector, !
	!	! (3d) nickel consumption !
IV	!	is expected to rise by a further 10% this !
	!	year. (4) Nevertheless, consumption may be !
	!	14% below the 1979 peak of 586,000 tonnes. !
	!	(Graph 6) !
	!	! (5a) Mine production increased by an !
	!	estimated 6% last year (5b) and refined metal !
I	!	output by 3%. (6a) Prices, (6b) which fell !
	!	sharply at the end of 1982, (6a) have been !
	!	restored to approaching their previous level !
	!	! as much by producer discipline as by the !
II	!	recovery in demand. (7a) Mine capacity !
	!	utilisation is estimated to have been just !
	!	57% in 1983 (7b) whilst supply deficits of !
	!	refined metal have resulted in a reduction in !
	!	producers' stock in each of the last two !
	!	years. !
	!	! (8a) The main uncertainty (8b) concerning the !
III	!	price prospects for nickel (8a) is whether !
	!	supply will continue to be controlled during !
	!	a period of demand recovery. (9a) Initial !
	!	signs are not encouraging (9b) with many !
	!	major producers - (9c) led by the Canadians - !
	!	(9b) planning to commence 'normal' working !
	!	this year. (10a) Certainly, any premature !
	!	reactivation of 'idled' capacity will dilute !
	!	the benefits of a demand upturn !

Then follows another part (part III), in which the author moves on to assessing the different factors influencing the trends in Nickel consumption and prices. These are found in propositions (3a) to (3c) and (8a) to (10a) respectively.

In propositions (8a) to (10b) especially, the writer examines whether the same factors that in his opinion directed the course of the market in the recent past still underlie the prices of Nickel at the moment of writing. It is only then, after all these factors have been balanced, that the writer goes on to posit in another part of the text (part IV) his view of the likely course of the market in the foreseeable future, which in the text refers to the remainder of 1984. The author's prediction is found in propositions (3d) to (4) for Sub-topic 1 and in proposition (10b) for sub-topic 2.

The ordering of the categories of the schematic structure in this text differs from that of the previous example (example 1). I shall argue later - in section 4.5.3 - that example 2 illustrates a case of **schema juxtaposition**.

The same four part basic pattern is also found in a number of texts from the OECD Economic Outlook, as illustrated in example (3).

- (3)
- | | |
|---|--|
| | ! (1a) Although the reduction of inflation and ! |
| | ! the balance-of-payments current account ! |
| I | ! deficit remained the objectives of economic ! |

- ! policy in 1983, (1b) there was nevertheless !
! some slippage, (1c) particularly concerning !
! monetary and incomes policy. (2a) Hence !
! domestic demand accelerated, (2b) but was !
! more than offset by a strong negative !
! contribution from the change in the real !
! foreign balance, (2c) so that GNP growth was !
! some 3 per cent in 1983, (2d) compared with !
! 4.5 per cent in 1982. (3a) Inflation has !
! accelerated markedly since the second half of !
! 1983, (3b) to reach an annual rate of 44 per !
! cent for wholesale prices and 37 per cent !
! for retail prices in the first quarter. !
! !
- II (4) The speeding up of inflation was !
! associated with rapid growth of the monetary !
! aggregates and high nominal wage increases. !
! (5) Bad harvests and increased public tariffs !
! also contributed. (6a) Exports continued to !
! increase in 1983, albeit more slowly, (6b) !
! owing to depressed world trade conditions and !
! special factors (6c) that adversely affected !
! agricultural exports. (7a) However Turkish !
! exporters, (7b) faced with a contraction of !
! markets, (7a) posted relatively modest price !
! increases (7c) to maintain their foothold, !
! (7d) so that export earnings in dollar !
! actually stagnated. (8a) With imports !
! continuing to increase (8b) and the surplus !
! on invisibles narrowing (8c) as a result of a !
! sharp fall in workers' remittances, (8d) the !
! current balance deficit widened from \$1.2 !
! billion in 1982 to \$2.1 billion in 1983. !
! !
- III (9a) The Government returned by the November !
! 1983 elections has stated its intentions to !
! tighten policies (9b) in order to redress !
! the current account (9c) and bring down !
! inflation. !
! ! (10a) On the basis of announced !
! policies (10b) GNP growth in 1984 is !
! projected to accelerate to about 4 per cent, !
! with a slowdown of domestic demand and a !
! positive contribution from the change in the !
! real foreign balance. (Graph) !
- IV (11a) Inflation is projected to slow down to !
! about 20 per cent in the second half of 1984 !
! for both wholesale and retail prices, (11b) !
! although the yearly average increases are !
! likely to be much higher than in 1983 (11c) !
! owing to strong carry-over at the beginning !
! of the year. (12a) A recovery in export !
! earnings is also forecast (12b) in connection !
! with expanding world trade and an !
! improvement in competitiveness (12b) as a !

! result of exchange rate management. (13a) !
 ! Hence, in conjunction with a rise in the !
 ! invisibles surplus, (13b) the current account !
 ! deficit is projected to narrow to \$1.5 !
 ! billion. (14a) On the assumption of a !
 ! continuation of present policies (14b) GNP !
 ! growth in 1985 is currently forecast at 4 !
 ! per cent, (14c) with a further slowing of !
 ! inflation and a reduction of the current !
 ! account deficit to \$1 billion. !

(Text 53)

Text 53, which is about the economy of Turkey, seems to be organised very similarly to the two texts discussed above. It is possible to distinguish a chunk stretching from propositions (1a) to (8d) looking at the development of the country's economy in the past, and another one spanning from propositions (9a) to (14c) looking at the prospects of the country's economy in the future.

The text opens up, in part I, with a description by the writer of the behaviour of 3 main components of the country's domestic economy, notably Demand, GNP growth or Output and Inflation (or rise in prices) over the recent past (1983).

Then in part II, the author attempts to determine the factors that have influenced the course of economy in the recent past. Here the informed reader will easily capture in propositions (4) to (5) and in (6a) to (8d) what, in the author's opinion, has respectively caused on the one hand inflation and demand to accelerate and on the other output to slow down. The informed reader will easily infer here that the performance of

Export/import and the budget deficit, as discussed in propositions (6a) to (8a), are deemed to have contributed to the sluggish performance of the country's output.

Then follows another part extending from propositions (9a) to (9c) - i.e part III - in which the writer points out a single factor underlying the future course of the country's economy at the moment of writing. Interestingly, here again as in text 5 discussed previously, the influencing factor seems to be the political climate together with its effect on fiscal policies, as expounded in proposition (9a).

It is only after taking into account this major factor that the writer posits in part IV of the text, what he sees as the likely future course of the various components of the domestic economy of Turkey. First in the short run, which is expounded in propositions (10a) to (13b) and then in the long run, which is expounded in propositions (14a) to (14c).

The 4-part basic pattern also appears to be applicable to many texts from the last source of materials, WCO/83, published by the EIU, as the following excerpt taken from a very long text shows. I shall argue later in section 4.5.2 that such an extract is also an example of an **embedded schema**.

(4)

I	! (13a) Free world supplies of refined lead !
	! have declined slightly in recent years !
	!

- II ! (13b) mainly because of a sharp fall in the !
 ! USA of about 150,000 tons down from 1979 to !
 ! 1,070,000 tons in 1981. (14) About 130,000 !
 ! tons of mine and metal production were lost !
 ! by the prolonged strike in Missouri. (15a) !
 ! There were also losses from strikes at Mt Isa !
 ! and Broken Hill in Australia, (15b) but !
 ! higher production from the new Black Mountain !
 ! mine in South Africa and from Tara in Ireland !
 ! (15c) which had been on strike for part of !
 ! 1980. !
-
- III ! (16a) Although some mines seem likely to !
 ! remain closed until the middle of 1983 (16b) !
 ! because of low prices, (16c) several new !
 ! mines are now being developed in Canada, !
 ! Mexico, the USA and Australia, (16d) and !
 ! with full production at Missouri (16e) these !
 ! increases will more than offset the closures, !
 ! perhaps indefinitely, of the large Cyprus !
 ! Anvil mine in the Yukon. !
-
- IV ! (17) World mine output in 1982 could in fact !
 ! well rise to a new record level. !
-

(Text 56)

Example 4 - a text discussing the production of Lead- is developed similarly to the three previous texts. We find a chunk stretching from propositions (13a) to (15c) which dwells on recent developments in Lead production and another chunk consisting of propositions (16a) to (17), which deals with prospects for Lead production in the foreseeable future.

The text begins in part I with a description of trends in the production/supply of Lead in the metal market. This is expounded in proposition (13a). The author then moves on, in propositions (13b) to (15c), to giving reasons for the trend just described. As in the previous texts discussed in this section, we see in this text also that the cause per se of the described trend,

expressed in proposition (13b), is expanded in proposition (14), whereas propositions (15a) to (15c) provide additional explanation to the description.

Then comes part III, in which the writer assesses, at the moment of writing, whether the factors influencing the trend in the recent past, viz mine closures due to a depressed market, could still apply to the future. The author's assessment is expressed in propositions (16a) to (16e).

It is only after this that the author puts forward -in part IV- his own view of the likely trend in lead production in the immediate future, here 1982.

I argued at the beginning of this section that there were, in addition to the four recurrent parts, some occasional ones found in certain texts of the corpus. These I illustrate here.

Consider the following excerpt extracted from text 24.

(5)

I	! (1a) Interest rates continued to edge upwards ! ! during the first quarter of the year _____ ! ! _____ ! (1b) !
II	! because of the weakness of the Belgian Franc, ! ! (1c) and the Central Bank raised its rates by ! ! 1 point on 16 February. (2a) Although the ! ! upward trend eased (2b) following the ! ! announcement of a new austerity plan on 15 ! ! March, (2c) 3 month-interbank rates have ! ! risen by over 1% since the turn of the year, ! ! (2d) reaching 11.9% in mid-May. ! ! _____ ! ! (3a) Despite the improvement in business ! ! conditions, (3b) private sector credit ! III ! demand remains subdued. (4a) Furthermore, ! ! the implementation of the new austerity !

	! measures has made it almost certain (4b) that !
	! the reduction in the current account and !
	! public sector deficits will continue. _____ !
	! _____ ! (5a) !
IV	! Because of this, (5b) the Belgian Franc may !
	! see its position strengthen somewhat against !
	! the D.Mark, (5c) thus allowing some reduction !
	! in the excessively high 5-6 point interest !
	! rate differential. _____ !
	! _____ ! (6a) However, there would !
V	! be little scope for a decline in short-term !
	! term interest rates (6b) if eurodollar rates !
	! were to rise further. _____ !
	! _____ !
	(Text 24)

This is a text about developments and prospects in interest rates in Belgium. Like all the preceding examples, it is possible to delineate in propositions (1a) to (2d) and in propositions (3a) to (6b), the two boundaries that respectively look at the past and future performance of interest rates in Belgium. Unlike the previous texts however, one can find an additional part to these two major boundaries.

After the writer has proposed his view of the future performance of interest rates (see part IV), he appears to go a stage further and considers what factors may jeopardise the chances of his prediction being fulfilled. This is what is expounded in part V, consisting of propositions (6a) and (6b).

Another variation we can see in the basic structural pattern of these texts is in the way in which the author opens up his text, as is shown by example (6).

(6)

- I ! (1a) The major change to our current account !
! forecast in the last Survey is an upward !
! revision of the expected US current account !
! deficit for this year and 1985, (1b) !
! reflecting both an upward revision of the !
! trade deficit and a small downward revision !
! of the invisibles surplus. !
- II ! (2a) The latter !
! primarily reflects reduced net investment !
! income (2b) as a result of the deterioration !
! of the US net foreign asset position. (3) !
! The expected further deterioration in the !
! trade account from an annualised rate of !
! around US\$100 billion during the first half !
! of the year reflects the impact on !
! competitiveness of the recent strength of the !
! dollar and the expected continuing divergence !
! between US domestic demand growth and growth !
! in US export markets. !
! (4a) The impact of the deterioration in the !
! US trade balance on other countries can be !
! traced (4b) using OECD statistics on !
! bilateral trade balances (4c) which are !
! available up to the first quarter of this !
! year. (5a) Of the US\$70 billion deterioration !
! in the US deficit between the first quarter !
! of 1983 and the first quarter of 1984 (from !
! US\$32 billion to US\$103 billion at an annual !
! rate), the rest of the OECD area benefited by !
! almost US \$40 billion (5b) and the non-OECD !
! area by just over US \$30 billion, (5c) !
! roughly in line with the 60/40 geographical !
! split in US imports. (6a) Within the OECD !
! area, Japan has benefited by almost US \$ 11 !
! billion (6b) and this has been reflected in !
! the improvement in Japan's overall trade !
! balance. (7) For the EEC, however, an !
! improvement of US \$ 15 billion in the !
! bilateral trade balance with the United !
! States was reduced to an overall trade !
! improvement of only US \$ 6 billion by !
! a deterioration in balances with the rest of !
! the world - in particular with Comecon. !
- III ! (8a) The magnitudes will no doubt be subject !
! to revision (8b) as more detailed trade !
! figures become available. (9a) However, the !
! figures so far probably provide a reasonably !
! good guide to the general pattern of changes !
! in trading patterns this year - (9b) namely !
! that Europe is failing to benefit fully from !

! the increasing US deficit (9c) and that the !
! bulk of the benefit is accruing to Japan and !
! developing countries. !
! !
! (10a) The net result is a forecast (10b) that !
! the OECD's trade balance with the rest of the !
! world will deteriorate by about US \$ 35 !
! billion this year. !
IV ! (11a) This is slightly larger (11b) than the !
! improvement of about US \$ 25-US \$ 30 billion !
! forecast for the non-OECD area, (11c) based !
! on expectations for the major developing !
! countries, (11d) and implies a slight !
! widening in the world trade balance residual. !
! (12a) Because of difficulties in recording !
! payments flows, (12b) variations in the !
! residual are by no means uncommon - (12c) on !
! OECD figures, (12d) the trade balance !
! residual has fluctuated between US \$ 10 !
! billion and US \$ 37 billion during the last !
! five years. !
! ! (13a) However, if the residual !
! were to be kept to last year's level (13) the !
V ! main risk to our forecasts is probably (13c) !
! that European balances would improve more !
! than we have forecast. !
! !
! (Text 87)

In text 87, which is about the current accounts of OECD and non-OECD countries, one may say that the writer has chosen to open up his forecast (see part I) by checking the extent to which his previous forecasts came to materialise in the real world. From there he appears to follow the same logical steps - namely parts II, III, and IV - as have been isolated in the examples quoted previously. These lead to his final assessment of the future course of current accounts (or trade balance) in OECD as well as non-OECD areas (see part IV). Interestingly, as in the preceding example (example 5), the writer of text 87 goes further and mentions factors that may adversely affect the fulfilment of his forecast

(see part V).

I have decided to label those parts that appear to recur in the overall structure of most of the texts of the present corpus by resorting to terms that are commonly used in both Linguistics and Economics.

Taking all the texts quoted above for instance, one can say that texts 5, 53, 70 and part of text 56 project the following structure:

- I. Description of Previous trends
- II. Reason for Previous Trends
- III. Basis for Predicting
- IV. Prediction of Future Trends

Whereas Text 87 and part of text 24 have the following structure

- I. Revision of Previous Forecast / Description of Previous Trends
- II. Reason for Previous Trends
- III. Basis for Predicting
- IV. Prediction of Future Trends
- V. Risk to the Prediction

4.3 A model for analysis

An analysis of 100 texts drawn from the aforementioned publications reveals a schema containing two main episodes: **Reporting** and **Predicting**.

An **episode** is defined here as an identifiable temporal sequence of economic trends or events. The Reporting Episode is seen as a narrative and evaluation of previous or outstanding trends or events, whereas the Predicting Episode refers to a prediction of future economic trends or events, based on assumptions or

factual evidence, which is made by a trained economist in the exercise of his profession.

As the definition of terms makes clear, the temporal aspect of an episode is reflected in the above named 'categories by the lexical items previous or outstanding in the Reporting episode and future in the Predicting episode. It is expounded by a trilogy of past, present and future tenses which appear in every Economics forecasting text.

The analysis also reveals that each episode contains **normally required** and **optional** moves. Normally required moves are those most likely to be found in each text, while optional ones are found occasionally.

van Dijk and Kintsch (op.cit:66) recognize that a move is an action taken to attain a goal. In Swales (1981a) we learn that to introduce his own research, a research article writer takes some stereotypic steps or moves for the purpose of introducing present research. Similarly, the present analysis suggests that an economic forecaster does not go straight to a statement of prediction but rather tends to follow a pattern of reasoned arguments that culminate in the prediction *per se*.

A **move** is seen in the present analysis as the functional label of a proposition or a group of related propositions enabling the author to release in the end, an economic prediction. As such, this view is somewhat different from that of a move as a group of acts

(Sinclair & Coulthard, 1975), as a full stretch of talk, or as an utterance (Goffman, 1976:272), though in all these accepted uses of the term, a move has some distinctive unitary bearing.

In this analysis, the sum total of normally required moves makes up the **basic** schema and where optional moves are found, the schema is said to be **extended**.

In functional terms, it is possible to posit that, in its basic and extended forms, the Forecast Schema as enacted in the country or sector review section of economic reports and surveys consists of the following moves:

A. Basic Schema

- -----

1. Describing Previous Trends
2. Giving reasons for Previous Trends
3. Setting the Basis for Predicting
4. Predicting Future Trends

B. Extended Schema

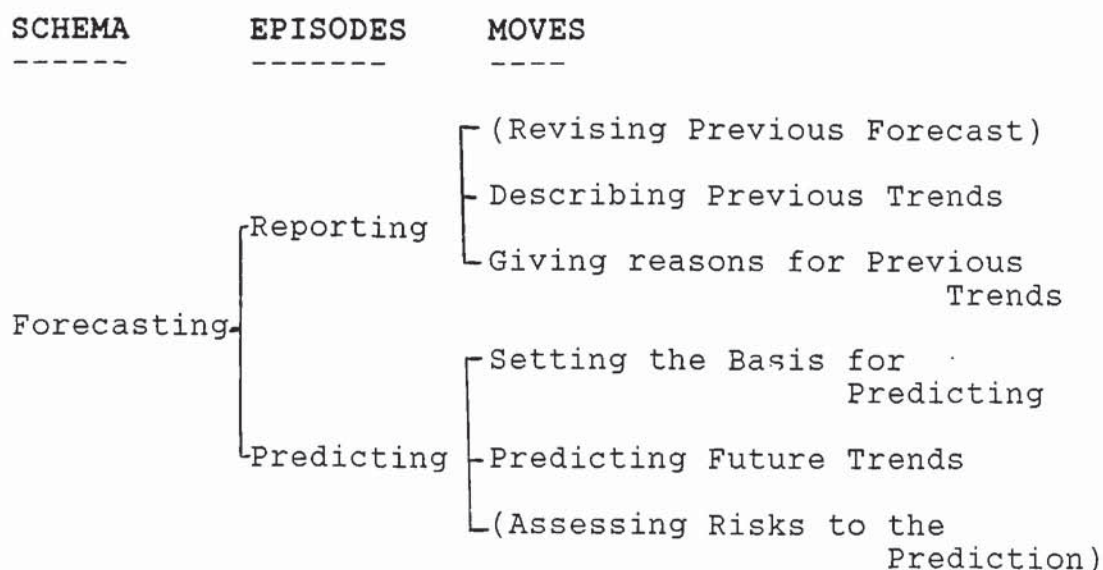
- -----

1. Describing Previous Trends or Revising Previous Forecast(s)
2. Giving Reasons for Previous Trends or Giving Reasons for Revising
3. Setting the Basis for Predicting
4. Assessing risks to the Prediction

Moves 1 and 2 in both the basic structure and the extended schema pertain to the Reporting episode while the remaining moves belong to the Predicting episode as illustrated in chart 2. It is also contended here that the Predicting episode, and more especially the Prediction move, are defining characteristics of the Forecast schema.

Each move is described in the next section. I shall then discuss the ordering of these moves together with the different realisation patterns of the schema later on.

Chart 2 A Schema for forecasting in Economics Text



4.4. Description of the categories of the schema

4.4.1 Categories of the Reporting Episode

4.4.1.1 Normally required moves

4.4.1.1.1 Describing Previous Trends (DPT)

Describing Previous Trends, henceforth DPT, is the functional label given to that part of the overall text structure in which the writer attempts to give an account of what the general direction of economic trends of an item of economy (e.g Inflation) or of a market (e.g Nickel prices) has been in a specified period of

time that has just elapsed. The trend described may be that of increase, decrease or stability and is generally set in comparison terms. The comparison may be in relation to a previous period (e.g 1983 vs 1982), to another country (e.g Inflation in France vs Germany) or another item or variable (e.g consumption vs production of Nickel).

The DPT move is probably used by the writer to give the reader a better picture of the change or lack of change that has taken place in the market or economic sector being surveyed.

The information given in this part of the text structure is factual in that it refers to something that actually happened. It is additionally time-specific in that a date, month, season, quarter, year or any other specified period of time in the past, or stretching from the past to the moment of writing, is given.

Cathy George contends that economic report writers find it necessary to describe previous trends as the foundation upon which their forecasts are built. In her words:

"I think it's probably the foundation of why they go on then to predict what they do predict there." (Vol.II, p.143)

A simple example of a DPT move is (7), in which the behaviour of a financial market item, namely short-term interest rates, is described in relation to a particular country (France) and in comparison with the

behaviour of the same item over a previous period.

(7)

! Move !	! Text !
! DPT !	! (1a) There has been a market reduction in ! ! short-term interest rates in France since the ! ! summer to 11.4% in September (1b) compared ! ! with their level of 12.4% at the beginning of ! ! the year. !

(Text 32)

Example (8) on the other hand illustrates a case in which the direction of a single economic variable (the rate of inflation) is described across a group of countries, (OECD strongest economies).

(8)

! Move !	! Text !
! DPT !	! (1a) the trough in the present inflation ! ! cycle for the seven largest OECD economies ! ! occurred in the summer of 1983 at around the ! ! 4% level (1b) and the overall figure has ! ! since started to edge upwards. (2) However, ! ! considerable differences in performance ! ! remain between individual economies. (3a) The ! ! inflation rate in the United kingdom bottomed ! ! out first in the second quarter of last year ! ! at just below 4% (3b) and was followed by the ! ! United States, Canada and Japan. (4a) ! ! Elsewhere, however, the situation is more ! ! favourable (4b) and in Germany the rate has ! ! stabilised (4c) while in France and Italy the ! ! rate of inflation has continued to decline. ! ! (5a) The sharpest rebound in inflation has ! ! occurred in the United States, (5a) where the ! ! year-on-year increase in consumer prices has ! ! almost doubled from the low point of 2.4% in ! ! July 1983 to 4.7% in March 1984. !

(Text 83)

It is argued later on in section 4.5.1 that the DPT move is not always discrete and may be merged with

other moves, notably the Reason move, nor is it always found at the threshold of the text. Where the move is discrete, however, the writer may choose to describe the trend in the market or economy by giving an account depicting the evolution of the item over specific time periods.

This aspect of the DPT move can be illustrated by example (9), in which the market item (price of Lead) is chronicled across periods of time, which are 1979, 1980, February 1981, August 1981, up to the moment of writing.

(9)

! Move !	! Text !
! DPT !	! (4a) After falling throughout 1980 from a !
	! high of over 700 pounds in 1979, (4b) the !
	! price of lead plummeted to under 300 pounds !
	! in February 1981, (4c) rose to over 500 pounds !
	! pounds in August (4d) and has since gradually !
	! declined to its current level, (4e) having !
	! fallen in recent months as low as 280 pounds !
	! a ton on some days. (5) Throughout most of !
	! the time the value of the pound has been !
	! weakening. (6a) In the USA the producer !
	! price, (6b) not following the LME quotation !
	! as closely as in previous years, (6a) has !
	! been moved frequently (6c) but not over such !
	! a wide range. !

(Text 56)

The writer may also opt for a trends description which follows up from a previously published forecast. It is easy to agree with Cathy George (C.G) that report writers do so as a reminder to the readership because, she argues:

"the reports are written to be read in their entirety. They aren't assuming that the reader has read the previous report"

(Vol.II, p.139)

But when the text is closely examined, it becomes evident that a trends description related to a previously published forecast can operate as a strategy of the author used to buy the confidence of the readership in his reports. This is particularly true for trends descriptions that appear to portray the materialisation of a previous forecast that has been fulfilled according to plan. After all forecasts put the reputation of the corporate author on the line, and it seems quite understandable that traces of a partisan point of view should be found in the reports.

"because, you know, one's prestige would stand by those if we are predicting that interest rates are going up or down or something, we'll be very careful about what we say there and we want to keep them up-to-date, as soon as we've written them we put the emphasis on getting them posted off to people before anything else happens."

(Vol.II, p.135)

The argument here, therefore, is that forecast follow-up trends descriptions are used by writers as a bait for confidence. This is illustrated in example (10), in which proposition (2a) not only marks clearly the relationship between a trends description and a previously published forecast, but also tells us that the previous forecast has been successful.

(10)

! Move !	Text
! DPT !	(1) During 1983 there have been large swings !

! in most current account positions. (2a) The !
! direction of movement has, in general, been !
! in line with the forecasts in our last !
! survey, (2b) with the United States and !
! United Kingdom showing deteriorating trends, !
! while Japan, and to a lesser extent European !
! countries, have improved. (3a) For the United !
! Kingdom and Italy the size of the movement !
! has been reasonably close to expectations, !
! (3b) but for a number of countries the !
! magnitude of the swing has been greater than !
! expected. (4a) In particular, the US deficit !
! has widened, (4b) the French deficit !
! narrowed, (4c) and the Japanese surplus !
! expanded at faster than expected rates. (5a) !
! (5a) In contrast the Canadian and more !
! importantly the German current account !
! performances have been disappointing, (5b) !
! with the expected substantial improvement !
! having failed to materialise. !
! _____ !
! (Text 82)

The function of referring to successful previous forecasts is captured in the reports by such expressions as the following.

in line with the forecasts in our last
survey (Text 82 (2a))
reasonably close to expectations (Text 82
(3a))
in line with expectations not to cause us
to alter our forecasts (Text 84 (1b))
etc.

I shall argue in section 4.4.1.2.1 that authors adopt a different strategy for describing market or economic situations in relation to unsuccessful previous forecasts.

But all in all, the DPT move should be regarded as a normally required move since it is found in 91 out of the 100 texts analysed. Indeed, only 9 texts - 34, 43, 57, 58, 60, 71, 75, 77, and 87 - representing 9% of the operational corpus show no trace of the DPT move.

In some texts, such as 87 for instance, the DPT move is missing probably because an alternative move to the DPT, REVISION, has been opted for by the writer. More than one DPT move can be found in 34% of the texts, a variation which probably depends on a number of topics dealt with in the text and which, it is contended here, make up different schemata.

In the DPT move, the trends described can be past, recent or, occasionally, current. In the case of a chronological description however, a mixture of the three may be found. These trends are expressed respectively by the past and present tenses, though the present tense can be realised in the simple, perfect or progressive forms.

While examples (8) and (10) illustrate a DPT move with a mixture of the simple past and the present perfect tense, denoting both past and recent trends, example (11) below illustrates a Description of Previous Trends with a consistent use of the simple past tense.

(11)

! Move	! Text	!
!	!	!
! DPT	! (1a) Economic conditions <u>remained</u> weak in	!
!	! 1983 (1b) with an estimated 1 per cent	!
!	! increase in GDP. (2a) Exports and private	!
!	! non-residential investment <u>were</u> the strongest	!
!	! demand components, (2b) but there <u>was</u> modest	!
!	! additional support from private and public	!
!	! consumption. (3a) Labour market conditions	!
!	! <u>deteriorated</u> further, (3b) but less	!
!	! precipituously than in the previous year.	!
!	! (4a) The unemployment rate <u>reached</u> 15.25 per	!
!	! cent in March this year (4b) (18 per cent in	!

! the national definition). (5a) Wage !
! moderation and continued productivity (5b) as !
! employment fell (5a) contributed to lower !
! cost increases (5c) and, even though !
! inflation decelerated sharply, (5d) business !
! profits improved. (6) Consumer prices rose by !
! only 2.5 per cent. (7a) Strong export growth !
! led to an increase in the current balance to !
! around \$3.5 billion, (7b) 'in which a volume !
! increase was partly offset by a terms of !
! trade loss. !

(Text 46)

Example (12) on the other hand illustrates what can be seen as a simple description of current trends.

(12)

! Move !	! Text !
! DPT !	! (2) After an increase from 5.9% in September ! ! to 6.5% in December, the three months' ! ! interbank rate currently stands at 6.2%. !

(Text 18)

The verbs in the past or present tenses found to be characteristic of the DPT move are called here **verbs of trends description**, otherwise known as "verbs of increase and decrease" (Dudley-Evans, 1981). These fall into two categories. **State verbs** and **motion verbs**, both of which help the reader to capture the change or lack of change in the market or economic sector surveyed. The state verbs most commonly used in the corpus are the following:

! amount	!
! be	!
! continue to	!
! deteriorate	!
! ease	!
! expand	!
! firm	!
! grow	!

!	improve	!
!	narrow	!
!	recover	!
!	remain	!
!	show	!
!	stabilise	!
!	stagnate	!
!	tend to	!
!	widen	!
!	<hr/>	

Verbs of motion on the other hand make an interesting case. It is suggested in the mainstream Text and Discourse Linguistics literature that they denote a change of location (de Beaugrande & Dressler, op.cit:95). To use the metaphor of vehicles for instance, one can start a car, pick up passengers or luggage accelerate, decelerate or reverse the car or bring it to a halt. By so doing, one moves from one place to another.

In the corpus however, motion verbs express a change of direction in the market or economic sector. The ones most commonly used in the corpus are the following.

!	accelerate	!
!	arrest	!
!	begin	!
!	come down	!
!	decelerate	!
!	drop	!
!	edge up(ward)	!
!	fall	!
!	fluctuate (around)	!
!	go up	!
!	halt	!
!	head	!
!	hover (around)	!
!	increase	!
!	level out/off	!
!	move up/down(ward)	!
!	pick up	!
!	plummet	!

!	plunge	!
!	peak	!
!	reach	!
!	return	!
!	reverse	!
!	rise	!
!	spread	!
!	start	!
!	steepen	!
!	stop	!
!		!

The factual nature of this move is also made clear in the texts by the fact that in order to describe trends, authors tend to give an accurate or an approximate figure in percentage terms. Examples (13) and (14), illustrate respectively accurate and approximate figures.

(13)

! Move	! Text	!
!	!	!
!	!	!
! DPT	! (1a) Although less well documented, (1b) !	!
!	! chrome shows the same broad picture as nickel !	!
!	! and molybdenum, (1c) with prices plunging in !	!
!	! the face of severely reduced demand (1d) !	!
!	! despite production cuts. (2a) The European !	!
!	! price of charge chrome in Europe in November !	!
!	! was <u>\$0.36 - \$0.39 per lbCr</u> , (2b) <u>23 per cent</u> !	!
!	! lower than a year previously, (2c) while that !	!
!	! of 4-6% high....	!

(Text 62)

(14)

! Move	! Text	!
!	!	!
!	!	!
! DPT	! (1a) Non-communist world mine production of !	!
!	! nickel in the first half of 1982 <u>was</u> !	!
!	! <u>approximately 18 per cent</u> lower than in the !	!
!	! first half of 1981, (1b) and production of !	!
!	! smelter and refinery products was <u>about 14</u> !	!
!	! <u>per cent lower</u> , (1c) the latter amounting to !	!
!	! <u>about 225,000 tons</u> .	!

(Text 61)

Against these examples is one in which the trend described is neither accurate nor approximate but vague.

(15)

! Move !	! Text !
! DPT !	! (8) Long rates have <u>moved downwards</u> in recent !
	! months in line with the fall in short rates !
	! and the strength of sterling. !

(Text 7)

In contrast with the Predicting Future Trends (PFT) move for example, there are more instances of accuracy and approximation in the DPT move than there are in the PFT move. As a matter of fact, out of 181 sentences of Previous Trends descriptions, 81 instances, representing 44%, give accurate trends figures and 64 instances representing 36%, give approximate figures against only 36 instances, or 20%, where the trend described is vague.

In the PFT move, as we shall see, the equation appears to be reversed. This discrepancy is probably to be ascribed to the contingent nature of forecasting. Our Specialist Informant argues that:

"this is probably the nature of forecasting. You won't make a definite statement because partly I think it's probably impossible to forecast"

(Vol.II, p.141)

This belief is shared by the writer of this thesis. Chapters 5 to 7 show that forecasters' lack of certainty incertitude about future trends may be traced in their texts and that forecasters use several strategies to

propose their scenarios without committing themselves too unreservedly to their predictions.

Nevertheless, where the author prefers approximation in the description of previous trends, the following expressions are most commonly used.

!	about	!
!	almost	!
!	approximately	!
!	approaching	!
!	around	!
!	in the region of	!
!	near(ly)	!
!	some	!
!	towards	!

4.4.1.2 Giving Reasons for Previous Trends

Before or after a description of Previous Trends is given, the author often goes further and reflects on the past, recent or present market or economic situation described.

Giving Reasons for Previous Trends is the functional label I shall give to this part of the schema where the author attempts to account for the market or economic situation depicted. In this part of the text, the author may be viewed as attempting to answer such questions as they are, rather than simply offering a description as in the DPT move. An example of this move is (16).

(16)

! Move	! Text	!
! DPT	! (8) Long-term rates have been more stable. ! (9a) The yield on the three most recent ! government bonds moved slightly above 9% in ! July and the first half of August, (9b) ! after which yields fell back to 8.8% by ! September.	!
! REASON	! (10a) One of the factors (10b) influencing ! the level of long-term rates (10a) is the ! development of the budget deficit.	!

(Text 13)

In this example, in sentence 10, the author gives the reason for the trend in long-term interest rates described in sentences 8 and 9.

It does appear that in this type of writing (i.e. in Economic Forecasting), it is a requirement that market or economic situations be explained as well as described, since virtually every description of previous trends in the corpus is supported by an explanation of some kind. It is likely that report authors feel bound to account for descriptions in order to make their assessments of the market or of the economic sector more convincing to the reader. It is also likely that they do so in order to support their predictions since the same factors accounting for past trends may well dictate future developments.

In the corpus, there is a tendency for the author to offer his explanation either by giving the reasons for the trend described or by establishing the cause triggering the economic or market situation depicted in

the DPT move.

It is difficult to draw too fine a distinction between REASON and CAUSE in this case, given that both relations subsume causation. This is an abstract notion that involves "not only an antecedent consequent relationship, but that the antecedent is factual or at least assumed to be so for the sake of argument". (Longacre, op.cit: 106). In example (16) above for instance, it is easy to see that the antecedent, expounded in propositions (10a) and (10b), and which has a consequence on the market sector of long-term interest rates is factual.

Additionally, both REASON and CAUSE, as exponents of the explicitly stated REASON move, may be captured by a set of signals that apply to both of them. Indeed, where it is explicit, as in example (16), the REASON move may be signalled by a subordinator, a connector or a vocabulary 3 item of causal relation. Vocabulary 3 items are defined as a set of open-class items that may directly or indirectly paraphrase the semantic relations of either the subordinators or sentence connectors (Winter, 1982: 1& 97). The subordinators and sentence connectors on the other hand are respectively referred to by Winter as Vocabulary 1 and Vocabulary 2. They belong to the closed-system vocabularies of explicit items by which "the necessary limit to the number of ways in which we interpret sentences in sequence is

represented" (Winter, 1977:13).

The common signals found in the texts to mark the REASON move are shown below, and all of them expressing causation. The Vocabulary 3 items marked * are also provided in Winter's original lists (Winter, 1977: 14, 16 & 20).

Subordinators	Connectors	vocabulary 3 items of causal relation
*as *because with	*as a result of due to in response to owing to	affect associate *attribute *cause contribute dictate effect explain factor *follow influence *lead (to) *reason reflect spur support trace

The REASON relation can therefore be captured by the signals quoted above, but principally by the lexeme reason. The author may wish to modify this and use such expressions as the specific reason for or the main reason for which would tend to reflect whether the writer discards or not other factors deemed capable of having influenced the previous trend.

An example is (17), in which we find a couple of reasons given by the writer to justify the trend in UK short-term rates. One reads such signals as specific reason, implying that the writer has pinpointed the

single influencing factor of the previous trend in interest rates market, and may be largely attributed, implying that the writer does not rule out the existence of factors other than the one being mentioned.

(17)

Move	Text
DPT	(1a) The upward pressure on UK short-term interest rates (1b) which had been evident over winter months (1a) was finally arrested during March, (1c) when 3 months' money market rates fell back below 11%. (2a) Their subsequent decline to around 10% was accompanied by a similar percentage point reduction in bank base rates, (2b) thus reversing half of the increase (2c) that occurred around the turn of the year.
REASON	(3a) <u>The specific reason</u> for the reduction in interest rates has been the sharp recovery in the sterling exchange rate, (3b) which in trade-weighted terms rose by around 8% between the end of March and the end of April. (4a) In turn, the improvement in the exchange rate <u>may be largely attributed to</u> more settled conditions in the oil markets; (4b) even election uncertainties and a stronger dollar have not undermined sterling's strong performance.

(Text 7)

It does seem to be true, on the other hand, that CAUSE should be used to refer to an event or action creating the necessary conditions for the occurrence of a later event or action (de Beaugrande & Dressler, Ibid.). So to speak, CAUSE implies that the author establishes an intrinsic link between the economic event described in the DPT move and the one in the REASON move

that triggered its occurrence. Typical signals include because and cause, as in example (18).

(18)

! Move	! Text	!
! DPT	! (1a) A strong recovery in output started ! ! around mid-1983 (1b) bringing a sharp ! ! increase in corporate profits. !	!
! REASON	! (2a) The ! ! principal proximate <u>causes</u> of the recovery ! ! were a marked increase in farm output (2b) ! ! as the drought ended (2c) and a moderation ! ! in the rundown of non-farm stocks. (3) In ! ! addition non-rural output exports were ! ! buoyant. !	!

(Text 37)

Where the REASON move is implicit, there are no overt signals and the reader has to infer its presence from the context. In example (19) below, not only does the REASON move precede the DPT, but also the reader is able to sense that, in the writer's opinion, the propositional content of sentences (1) and (2) provide the economic situation which caused the stabilisation of interest rates.

(19)

! Move	! Text	!
! REASON	! (1a) In the first quarter of 1983, (1b) ! ! when the Franc was under very heavy ! ! pressure (1a) short-term interest rates on ! ! the domestic market were not raised, (1c) ! ! as they were in other countries (1d) in ! ! order to defend the currencies. ! ! (2a) The monetary authorities decided to ! ! fight the battle on the Eurofranc market ! ! (2b) where they pushed rates to ! ! unprecedented levels (3,000% day-to-day) ! ! (2c) to check speculation. !	!

!	!	! (3) In France, !
!	!	! the day-to-day rate therefore remained !
!	DPT	! steady at around 12.75%. !
!	!	!

(Text 3)

It is possible to argue that the causal relation can be made explicit in examples such as that above, by the insertion of a signal of causal relation such as For this reason at the beginning of sentence (3). However useful, in facilitating the reading process for example, the insertion of signals is not successful in all cases where the REASON move is implicit. Example (20) is a case in point.

(20)

!	Move	!	Text	!
!	!	!	!	!
!	REASON +	!	(11) The large budget deficit has kept !	!
!	DPT	!	bond yields high in relation to short- !	!
!	!	!	rates. !	!
!	!	!	!	!

(Text 15)

This sentence seems to be both a Description and a Reason. We learn that bond yields, a type of long-term interest rate, have been high in comparison with short-term rates, while at the same time we find that the large budget deficit is the cause of high long-term interest rates. But whatever the realisation of the REASON move, in this context it should be seen as providing support for the DPT move.

4.4.1.2 Optional Move

4.4.1.2.1 Revising Previous Forecast

Instead of opening a text by describing the previous or outstanding situation in the market or economy under survey, the author may wish to start his forecast by checking the extent to which a previously published forecast has been fulfilled in the real world. Where the writer's previous assessment has proved to be accurate or at least approximately so, the author may simply refer to it and continue with a Description of Previous or Recent Trends. Though, as Specialist Informant Robert Miller contends, the extent of success of a previous forecast is relative because, in his words:

"There's no way predictions could be accurate. It's of course a source of some pride for people to get things right... When you say right, there is obviously a difference, you know, slight percentage difference between what they said inflation would be just recently and what has actually occurred. But as long as it's within reasonable limits, you know, nobody would really mind". (Vol.II, p.152)

At times, however, their predictions do appear to fall outside "reasonable limits" and economic forecasters therefore do tend to refer to previously published forecasts in order to amend them in the light of what has actually happened. This is a variation in the Reporting Episode, which is referred to here as **Revising Previous Forecast**, and which is indeed an optional move within the schema in that it is only found

occasionally in the corpus.

Revising Previous Forecast, or REVISION in short, is therefore the functional label given to that part of text structure in which the author wishes to open the assessment of developments in the market or economy being surveyed by reappraising what was previously forecast to happen.

To open a text in this way, the author usually starts by stating what was expected or forecast to happen, what has happened instead, why the forecast was not fulfilled and what should now be expected instead.

Consider the following excerpt.

- (21) (1a) The expected convergence in international growth rates has so far failed to materialise to any meaningful extent, (1b) as European growth has continued to disappoint (1c) and US growth to exceed expectations. (2a) In part, the disappointing European performance is attributable to the effect of strikes (2b) which have resulted in downward revisions to this year's growth estimates for the UK and Germany by 0.7 and 0.5 of a percentage point respectively. (3a) Growth is now expected to pick up a little in 1985 in both countries, (3b) reversing the downward distortion to this year's figure, (3c) but to remain generally modest at around 3%. (4a) (Growth in France remains even weaker (4b) until policy becomes stimulative early in 1986. (5a) This should then reduce the extent (5b) to which France is a drag on the European recovery. (GRAPH 5)
- (6) In marked contrast, forecasts of US and Japanese growth have been revised upwards. (7) The US economy continued to dazzle during the first half of the year with a growth rate far in excess of expectations. (8a) Some slowdown, (8b) to a rate of perhaps 5%, (8a) still seems likely over the second half of the year -

(8c) a view supported by the rise in US interest rates and slowdown in US real money supply growth - (8d) but for the year as a whole, growth is now likely to top 7%, (8e) 1983/84 the strongest first eight quarters of recovery since 1949/1951. (9a) The Japanese growth rate for 1984 has also been revised, up by 0.7 of a percentage point, (9b) due in roughly equal part to stronger US import demand and a stronger domestic growth. (Table 1) (Text 86)

We see in this extract, about developments in the economic sector of Demand and Output in major OECD countries, that the author has opted to assess developments in these sectors of economy by reappraising the non-fulfilment of a previous forecast or expectation.

The author begins by telling the reader, in proposition (1a), what was expected to happen in the economic sector surveyed in this group. In propositions (1b) and (1c) he then describes what has happened instead. We learn in proposition (2a) what the writer thinks has impeded the materialisation of the expected previous scenario and in proposition (2b), he then announces the correction to be made to the previous forecast. Propositions (3a) through to (5b) expound the extent of correction and supersede the propositional content of any previously released forecast. The chunk stretching from proposition (6) to proposition (9b), on the other hand, is an expansion of proposition (1c) in that it both announces, especially in proposition (6), and expounds in propositions (7) to (9b), the extent of

correction prompted in proposition (1c).

The REVISION move, where it is found, is probably best viewed as a natural result of Economic Forecasting being a continuous activity and that economists consequently must check the extent of accuracy of their forecasts in order to maintain their reputation. Hence the more than occasional reference to previously published forecasts, as in proposition (1a) of the following excerpt.

(6a)

! MOVE	! TEXT	!
! REVISION	! (1a) The major change to our current ! ! account forecast since the last survey ! ! is an upward revision of the expected US ! ! current account deficit for this year and ! ! 1985, reflecting both an upward revision ! ! of the trade deficit and a small downward ! ! revision of the invisible surplus.	!

(Text 87)

The REVISION move might also be seen as an expansion of the constantly changing nature of forecasting, which compels economists to update their assessments as quickly as they can so as to ensure their competitiveness with other institutions involved in economic forecasting. This is how Robert Miller justifies frequent resort in these texts to the move I have termed REVISION.

"You have to put forward a sort of scenario of what you think is going to be happening over the next term or over the next year or the next few years and also the much more difficult propositions for

the next five years or the next ten years and in doing that obviously you then release your forecast... and obviously people like to follow closely the course of items in the markets and thinking together and if there is any discrepancy of course between say someone's Inflation Forecast for the next couple of years and their Interest Rates Forecasts and whatever... they want to know about it... Many people spew up these forecasts all the time because they change like the weather changes. You could have some developments in money supply for example which will certainly stop people running to look at their Interest Rates forecasts and their Inflation Forecasts... People are bound to want a survey... like preempt any moves by the government or so by saying "look, Money Supply has increased by so much this month, it's bound to have some sort of impact we've got to change our forecast", "so, forecasts change very quickly indeed". (My emphasis)

(Vol.II, p.146/7)

Clearly, such lexical items or groups of lexical items as upward revision, downward revision, change in the forecast, discrepancy, fell short of expectations etc., should be regarded as characteristic signals of the REVISION move. All of these items imply some change of estimate, often in percentage terms to a previous assessment of future market or economic trends.

Examples of this move may be found in texts 86, 87, 95 and 99.

4.4.2 Categories of the Predicting Episode

4.4.2.1 Normally required Moves

4.4.2.1.1 Setting the Basis for Predicting

If REASON provides the support for the DPT move,

BASIS supports the prediction of future trends. Setting the Basis for Predicting refers to that part of text in which the author provides the ground and /or evidence on which the prediction of future trends and indeed the forecast as a whole is based.

BASIS as a linguistic function/notion has been of interest to linguists for some time. Hoey (op.cit:79) for example, speaks of Basis for Evaluation which refers to that part of text in which the writer attempts to answer the question: "What makes you say that? ". This question can be adapted in the context of the present analysis as: "On which ground do you base your prediction of future trends?". Zuck and Zuck (op.cit) similarly see BASIS as that part of the text which gives some indication of the reliability of the evidence for the forecast.

In the corpus analysed here, however, the BASIS move consists of an assessment, by the writer, of the importance of economic indicators or other factors deemed capable of influencing the development of the item under survey at the moment of writing and over an incoming period. These factors are weighed up one against another and the impact of each on the underlying trend is considered.

Consequently, economic forecasters appear to resort to a number of options in order to support a prediction they wish to make. The first is to outline

the writer's own assumptions which lie behind his forecast. These are a set of arguments put forward by the writer to work out a feasible scenario for the market or economic sector being surveyed but which, he shows, are not material at the moment of writing.

The argumentation is immaterial because the writer, in this case, relies on **hypotheses, conditions** and **minor predictions** to assess the importance of events influencing the relevant trends. This is expounded in the texts by a great density of modality/hedging, by the use of conditional forms and by the lexeme assume or its stylistic variants assuming, assumption, on the assumption of, on the assumption that. Consider example (3a).

- (3a) (14a) On the assumption of a continuation of present policies, (14b) GNP growth in 1985 is currently forecast at 4 per cent, with a further slowing of inflation and a reduction of the current account deficit to \$1 billion. (Text 53)

In this example, proposition (14a) provides the ground on which the prediction, expounded in proposition (14b) is founded. This ground is immaterial however since the author is taking for granted that the influencing factor (continuation of present government fiscal policies) will prevail during the period assigned for the fulfilment of the prediction (1981). Yet by using the expression on the assumption of, not only does the author show the basis for his prediction but also makes, by the same token, the materialisation of the

prediction dependent on that of the propositional content of the BASIS. It can furthermore be argued that by using the phrase on the assumption of, the writer can be said to anticipate the materialisation of the political or economic action or event that must be seen to influence the relevant trends.

We continue with the issue of **assumptions** in the next chapter under our discussion of prediction modulation by condition specification but the following example illustrates what we mean by BASIS.

(22)

! MOVE	! TEXT	!
!	!	!
!	!	!
! BASIS	! (10a) Although the rapid recovery in price	!
!	! has recently faltered, (10b) influenced	!
!	! (10c) it would seem (10b) by the premium	!
!	! (10c) that the metal established over copper	!
!	! in the third quarter (10e) the underlying	!
!	! trend is still upwards. (11a) If, (11b) as	!
!	! expected, (11a) copper prices experience	!
!	! some recovery during the first half of 1984,	!
!	! (11c) the aluminium is likely to renew its	!
!	! upward movement (11d) since the growth in	!
!	! demand may well continue to outstrip	!
!	! increases in supply, (11e) resulting in a	!
!	! further depletion of producer stocks. (12a)	!
!	! However, with a deceleration in demand	!
!	! growth probable throughout 1984, (12b)	!
!	! combined with a build up in output (12c)	!
!	! following smelter re-commissionings, (12d)	!
!	! stocks levels are expected to stabilise	!
!	! in the second half (12e) and curtail the	!
!	! upward price movement.	!
!	! (13) In total, SDR-	!
! PFT	! denominated prices are likely to rise by	!
!	! around 20% this year.	!
!	!	!

(Text 66)

The BASIS in this extract is characterised by a mixture of factual information (propositions (10a),

(10d), (10e), (12c)) and of the author's own assumptions expounded by minor predictions (propositions (11b), (11c), (11d), (11e), (12a), (12d), (12e)) and by the conditional clause (11a). In the latter, the writer makes the fulfilment of the prediction (11c) dependent upon that of the conditional, which he can be said to anticipate. The author's conviction that the condition will materialise is particularly reinforced by the prediction expressed in proposition (11b).

The writer's anticipation is enhanced in cases where, as Basis for Prediction, the writer chooses to outline an assumption coupled with hard-core evidence for the assumption. An example illustrating such a Basis is (23).

- (23) (5a) Interest rates prospects are clearly dependent on the outcome of the general election on 9 June, (5b) but, on the assumption of the return of the conservative government (5c) currently indicated by the opinion polls, (5d) further modest reductions in money market rates during the summer seem likely.
(Text 7)

In this excerpt, the prediction expounded in proposition (5d) is supported by the preceding argumentation found in propositions (5a) to (5c). Proposition (5b), which is an assumption, is the core member of the Basis. Here the expression on the assumption of marks the Basis. It also exposes the fact that the writer anticipates the fulfilment of the political event (return of the Conservative Government) which the proposition entails and which the writer feels

underlies the course of the market sector being surveyed (in this case, that of Interest Rates in the United Kingdom). Proposition (5c), on the other hand, provides the evidence for the Basis.

It is worth noting at this point that, unlike assumptions, here material evidence is provided. It is a fact that opinion polls were constantly taken during the 1983 general election campaign in Britain and provided perhaps the nearest approach to an objective measure of relevant public opinion. Wherever possible in seeking evidence for the BASIS, resort tends to be made to graphs and statistics, quantifiable evidence being preferred as likely to be made more objective.

The BASIS move is further characterised by minor predictions, supporting a major one, that of future trends in the market or economic sector under survey, as a whole. Additionally, the major prediction of future trends reflects the topic of the text. Minor predictions on the other hand refer to the predictions made by the writer about the future course of particular individual indicators which are held to influence trends in the sector under survey.

And indeed, these minor predictions are often assumptions given the fact that they are not material at the moment of writing, and that the writer only anticipates their fulfilment. Let us consider the following excerpt.

(24)

! MOVE	! TEXT	!
! BASIS	! (4) Money Supply growth is expected to ! ! have broadly neutral effect on policy in the ! ! coming months.(5a) Although growth in broad ! ! Money Supply M2 could remain close to the ! ! top of its provisional annual target range ! ! of 6.5 - 9.5%, (5b) an M1 target of 4 - 8% ! ! looks less restrictive (5c) suggesting, on ! ! balance, a relatively comfortable monetary ! ! background consistent with only a narrow ! ! movement in rates over the coming year. (6a) ! ! In particular, private sector credit demand ! ! will remain modest (6b) due to the ! ! continuing improvement in the corporate ! ! sector's financial position. (7) The short- ! ! term outlook for rates will continue to be ! ! strongly influenced by wider economic ! ! indicators. (8) During the first half of ! ! 1984 both the rate of economic growth and ! ! inflation are expected to be in the region ! ! of 4 to 5%. (9a) This sort of performance is ! ! unlikely to prompt a tightening of monetary ! ! policy (9b) and could allow a slight easing. !	!
! PFT	! (10a) Overall, short-term interest rates are ! ! expected to change very little over the next ! ! six months, (10b) but any trend is more ! ! likely to be downwards than upwards. !	!

(Text 15)

The BASIS in this extract, essentially consists of predictions, namely propositions (4), (5a), (5b), (5c), (6a), (7), (8), (9a) and (9b), referred to here as minor predictions because of the fact that they are used by the writer as an argument to posit his prediction of future trends in American short-term interest rates, found in propositions (10a) and (10b). As a matter of fact, the writer is assessing, in this argument, the influence of economic indicators such as Money Supply (M1 & M2), economic growth, inflation and the American

Government economic policy, on the market of short-term interest rates over the forecast period.

Where the BASIS consists of assumptions, the weighting of arguments seems to follow an assertion-evaluation pattern that appears to be illustrative of a contrast clause relation (Hoey & Winter, 1986). Here, the writer first outlines the assumptions and then evaluates them. The evaluation should be understood as an appraisal of the factors the writer has posited as influencing the underlying trends of a market or an economic sector.

In the example above for instance (example 25), propositions (9a) and (9b) evaluate the writer's assertions made in propositions (4) to (8). But otherwise, the evaluation part of the Basis move is frequently signalled by a concession adjunct like nevertheless, however, but, and connectors such as at the same time, in contrast, on the other hand etc.

Example (25) illustrates an explicitly marked evaluation of assumptions in the BASIS move. Here, the evaluation chunk is signalled by the concessive marker but, found at the threshold of proposition (9a). However, as I shall argue in the next chapter, the conditional prediction expressed in propositions (9a) to (9d) has a preponderant role in the evaluation since the author has used it to disclaim the outcome suggested in the preceding argumentation which is best illustrated in proposition (8a).

MOVE	Text
Outlining Assumptions for underlying trends	(6a) Although private capital investment will increase (6b) as a result of the accelerating economic recovery, (6c) this is unlikely to exert strong pressure on the market (6d) since corporate cash flow strengthened considerably (6e) and private savings remain sufficiently high. (7a) Moreover, public sector borrowing will be reduced, (7b) due to the government's efforts to consolidate the budget. (8a) So in the capital market, also, domestic factors seem to indicate lower interest rates.
BASIS	
Evaluating the Assumptions for underlying trends	(9a) <u>But</u> here, (9b) just as in the short-term market, (9a) for exchange rate reasons a decline in yields is only to be expected (9c) if US interest rates fall or the D.Mark overcomes its present weakness.
PFT	(10a) Until then German long-term rates are likely to fluctuate around present levels.

(Text 18)

In addition to assumptions, the writer also relies on factual statements to build up his Basis for Predicting. Unlike assumptions, the factual arguments reflect economic events or political actions which have already materialised, and which the author views as likely to influence the course of the market sector or the economic sector being surveyed. An example is (3aa).

(3aa)

!MOVE	!TEXT	!
!_____!	!_____!	!
!BASIS!	(9a) The Government (9b) returned by the!	!
!	!November 1983 elections (9a) has stated its!	!
!	!intention to tighten policies (9c) in order to!	!
!	!current account (9d) and bring down inflation. !	!
!_____!	!_____!	!
!	!(10a) On the basis of announced policies (10b)!	!
!	!GNP growth in 1984 is projected to accelerate to!	!
!PFT	!about 4 per cent, with a slowdown of domestic!	!
!	!demand and a positive contribution from the!	!
!	!change in the real foreign balance..... !	!
!_____!	!_____!	!

(Text 53)

In this example, the prediction expressed in proposition (10b) is based on the premise found in propositions (9a) to (9d), here actually announced policies in proposition (9a), as opposed to materialised fact but treated as facts in the writer's argument. It is easy to argue that this action is still unrealised, not material at the moment of writing but we know from our knowledge of the world that government monetary/fiscal policies, generally announced in the budget, have force of the law. In this particular case the author underlines the fact that this government is legitimate given the fact that it has been brought to power by democratic means (see proposition 9b).

It is interesting to note the lexical items chosen by the writer to refer to the basis. The expression on the basis of, in proposition (10a) suggests that the referent is material (announced policies) and given in the foregoing thread of discourse. In other words, the expression on the basis of establishes an anaphoric

referential relation between the BASIS and the PREDICTION, even though as Barbaresi (1985:76) notes, it does not appear in Halliday and Hasan's list of connectors likely to fulfil this relation (Halliday & Hasan, op.cit).

The marker on the basis of seems to be favoured by economic forecasters to refer to econometric instruments such as surveys, opinion polls, formulae/equations etc. This usage can be illustrated by example (26), in which the marker occurs in a proposition referring to a data gathering instrument (surveys), much used in Economics and other social sciences research (Bailey, 1982; Cohen & Manion, 1982).

- (26) (19a) Final domestic demand is not
expected to rise, (19b) although non-
residential investment could improve,
(19c) on the basis of current surveys
(19b) by 4 to 5 per cent. (Text 46)

The use of this connector contrasts with that of the connector on the assumption of quoted above, which collocates with an unrealised political or economic event or action (e.g. continuation of present policies).

Another lexical item frequently used by authors to signal a Basis is given. Levinson (op.cit:192) suggests a relationship of synonymy between the lexical items given and assume in everyday English. While it is true that, in the present corpus, both lexical items signal a basis for predicting, the tendency for economic forecasters is to use assume to refer to as yet

unrealised economic events or actions and given to those events or actions which are material at the moment of writing and which the author feels underlie trends in the economic/market sector being surveyed. This subtle distinction seems to corroborate the observations made by Widdowson (1979:57)), Swales (1981b) and Rounds (1987) amongst many others, that the textualisation of some characteristic linguistic forms in specialist discourse can differ from that in everyday English.

In some ways, given, in this context can be seen as functionally similar to any of the variants of the lexeme base. It is used as a linguistic device signalling a causal relation within a proposition that is in anaphoric or exophoric reference to the BASIS for predicting future trends.

Let us illustrate this relationship with the following pairs of examples.

(27)

! MOVE	! TEXT	!
!	!	!
! BASIS	! (4) The economic policy has succeeded in !	!
!	! improving the situation and prospects for !	!
!	! the Belgian economy.(5a) The competitiveness !	!
!	! of the corporate sector has significantly !	!
!	! improved, (5b) income restraint continues !	!
!	! (5c) and the current account deficit will be !	!
!	! cut by almost half in 1983. (6a) The !	!
!	! government has asked Parliament for new !	!
!	! special powers until the end of this year, !	!
!	! and even until 31 March 1984,(6b) in respect !	!
!	! of certain matters relating to next year's !	!
!	! budget.	!

! PFT ! (7a) Given the improving situation, (7b)!
! ! money market rates will follow the downward !
! ! trend of corresponding DM rates, (7c) but !
! ! their differential will not rapidly fall !
! ! below the present level of about 5 points !
! ! above the German ones. !
! _____! (Text 2)

In this extract, the lexical item given, found in proposition (7a), signposts the Basis upon which the prediction of future trends expressed in propositions (7b) and (7c) is founded. Incidentally, the whole of the propositional content of (7a) is co-referential with all of the writer's argument stretching from propositions (4) to (6b). In other words, the improving situation (proposition (7a)), on the basis of which future trends are predicted (propositions (7a), (7b) and (7c)), is depicted in the immediately preceding part of the text.

Example (28) on the other hand illustrates a case in which the lexical item given signposts a causal relation between the prediction, expounded in propositions (12b) and (12c), and the basis for it, which is found in proposition (12a). Unlike the previous example, the proposition in which given is found is not co-referential with any other preceding proposition in the text but rather denotes an economic action that has a situational rather than a textual reference. Here is the example.

(28) (12a) Given the need to finance the large public sector deficit (12b) the private sector will bear the brunt of monetary restraint, (12c) with credit expansion to the private sector officially projected to be limited to 7.5 per cent. (Text 50)

4.4.2.1.2 Predicting Future Trends

This move constitutes the essence of the forecast. It refers to that part of the text structure in which the future scenario of the market or economic sector as perceived by the writer (Economist) is envisaged. It is usually presented as a deduction derived from the foregoing reasoning concerning the influence of the various factors underlying trends. In example (22) quoted above, for instance, we can see that the prediction about the price of Aluminium derives directly from the discursive argument found in the Basis.

The importance of the PFT move in these texts lies in the fact that it contains the main prediction; that is, the central message the author wishes to convey to his readership. In the Abecor Country Reports on Interest Rates, for example, all the major predictions of trends in interest rates are typographically highlighted. The Report Editor confirms that this is done in order to focus the reader's attention upon the key points which the report author wishes to communicate.

Central predictions must also be seen as self-fulfilling prophecies in that they often influence the action the reader may take after digesting the report or survey. For example, when we listen to detailed weather forecasts on the radio or television, the reporter might like to relate how the weather has been during the day

that has elapsed but what probably matters to most listeners is what he says about the following day's weather so that they know what actions or precautions to take. This may relate to clothing so that they can decide whether to go out the next day wearing a raincoat or an overcoat for example, or the precautions may be taken with regard to a planned outdoor sporting or social event.

Similarly, in the world of business, predictions made by economists do influence the actions or decisions of economic operators and government officials. For example, a prediction concerning the privatisation of a big and successful company may cause its shares in the Stock Exchange to rise abruptly, while a prediction about the nationalisation of the same company could cause them to tumble. Similarly, future trends in the market of a country's cash crop will certainly be of major interest to government officials involved in the making of that country's budget, and so on.

A further importance of the PFT move to this analysis is that its major predictions, if of interest to the public at large, are likely to be used in headline forecasting texts reported in the media. It could be argued, for example, that a newspaper headline such as Slow economic growth expected to continue (Financial Times; Thursday, August 30, 1984: p.8), directly reflects the major prediction of a forecasting

text from a primary source (Natural Institute Economic Review, No.109, 1984). However, matching the structure of Economics forecasting texts from professional sources and that of their popularised versions from media sources would be an investigation in its own right, as shown recently by Adams Smith (1987) and Myers (1985, 1988) for scientific texts.

Just as in the news text (Al Shabab, 1986), the central prediction in these texts may be a 'good news' or a 'bad news' forecast, though Specialist Informant Robert Miller implies that in the context of Economic Forecasting what is good news for some could be bad for others depending on where one stands. He supports this assertion with an example from financial markets in which a predicted rise in interest rates is regarded by most people as a bad news forecast.

"It depends on which way you're looking at it. Obviously Interest Rates are also the cost of funds to industry. So, in itself any rise in bank Base Rates for example... is obviously likely to increase the cost of money to industry. Which means that the investment may be reduced if producers do not think that the return from any investments they are going to make is likely to exceed the cost of the rate of interest then they obviously won't invest. So, a rise in interest rates is in itself not a good thing, no.
And of course if you are investing purely in money and obviously if Interest Rates go up then you know you're quite happy to see it happens." (Vol.II, p.148)

This suggests that it is up to the reader to form his own interpretations of what implications a

particular forecast may have for himself. The forecast may act as a warning, if he so interprets it, or as an encouragement to maintain his interests in the market being surveyed.

It is therefore difficult to predict the different uses predictions of economic or market trends will have to the readership. Linguistically, however, good news forecasts in these texts appear to collocate with what is called here lexical items of happiness while bad news forecasts collocate with what Hoey refers to as lexical items of problem (Hoey, 1979).

In example (27) for instance, it could be argued that one is able to sense that it is a good news forecast by noting such words as improve and succeed found in both the Basis and the PFT moves.

The PFT move is characterised by a prediction, referred to in the analysis as the main or major prediction, which is its nucleus and has necessarily a Time and occasionally a Cause component. Like the DPT move, the Time component in the PFT move may be specific in that the trend in the market/economic sector is projected over a specified period of time in the near or distant future and to which the fulfilment of the prediction is understood to be assigned. Unlike the DPT move, however, trends projected in the PFT move are not generally precise and are greatly hedged. This is perhaps due to the fact that as "forecasting is a chancy business" (Zuck and Zuck, op.cit), the writer has to be

cautious in releasing a prediction. Cathy George puts it:

"unless it is a definite fact, I think we probably would hedge it with perhaps and may and especially there again if it's looking into the future" (Vol.II, p.141)

Indeed it appears that the predictions found in the corpus fall into two broad categories. Some are straightforward or plain, and the others are modulated to some degree. I argue in the next three chapters that in the corpus the latter category of predictions outnumber the former. I also argue that forecast modulation is a **deliberate** authorial strategy and that each type of modulation is indexical of a number of communicative functions and of some degree of authorial commitment to or detachment from the predictions.

If for instance we take two major predictions found in the PFT move in the following examples, we can see that the manner of expression of the prediction found in example (24), reprinted here as example (24a), differs from that in example (30).

(24a) (10a) Overall, short-term interest rates are expected to change very little over the next six months, (10b) but any trend is more likely to be downwards than upwards. (Text 15)

versus

(30) (3) Overall, we expect the increase in average prices in 1984 to be very similar to that for 1983 (+11%). (Text 65)

It can be argued that although both predictions

are expressed by the verb expect, the writer appears to take more chances in (30) than in (24a) in that by using what may be termed the **corporate we**, he appears to claim responsibility for the fulfilment of the prediction. In (24a), the author by his use of is expected leaves the question of responsibility for the fulfilment open, and by so doing weakens the extent of authorial commitment to the prediction. Therefore, we have in (24a), an example of **weak author involvement** (WAI) and of **strong author involvement**(SAI) in (30).

The **corporate-we** must thus be seen as one of the ways in which Strong Author Involvement is manifested in these texts. To understand the significance of this stylistic choice, one needs to look at the sociolinguistic context of Economic Forecasting. Clearly, in free market western economies forecasting is a highly competitive activity.

Barclays International Financial surveys are a case in point. Not only does the form corporate-we (including us, our) abound in these texts, but they are published, according to Specialist Informant Robert Miller, particularly for the City of London. This is a financial setting where there is strong competition not only for bankers and other financial institutions but also for various other professional intermediaries such as stock, share or insurance brokers. All these groups issue their own forecasts about trends in the markets of

shares, money and commodities. Given such a complex setting, it seems reasonable to argue that forecasters would be inclined to display their identity and hence the use of the corporate- we.

' A further example is (31).

- (31) (1a) The negative factor most likely to persist is the fear (1b) that US interest rates will go higher (1c) but it is our central view (1d) that rates will not rise significantly above current levels, (1e) and indeed could ease slightly over the next few months. (IFS, 30/5/84., p.2)

Occasionally such identity display is also shown where the author actually names the corporation for which he works, as in (32).

- (32) (1) The EIU does not expect any resurgence of copper production in 1983. (2a) Indeed, a small 1.4 per cent fall is forecast on page 11, (2b) and there is no reason to count on any upsurge in by-product molybdenum either in North America or in Latin America. (WCO/83, p.63)

Identity display should not be confused with **attribution**, discussed in chapter 7, in which the referent of the prediction is a source external to the corporate author. In this example, we know that the EIU (The Economist Intelligence Unit) is the corporate writer of WCO/83 from which the prediction "The EIU does not expect any resurgence of copper production in 1983" is taken.

Another evident form of plain forecasting is the modal **will**. Although it is taken for granted to be the simplest way of expressing the future tense, as acknowledged by virtually all researchers in epistemic

modality in English (e.g Declerck, op.cit; Haegemann & Wekker, 1984; Coates, 1983; Combrie, op.cit. etc.), will is also a particularly strong indexical feature in so far as authorial commitment to the force of the prediction is concerned. The force is so strong that its recurrent use may sound awkward to the expert writer.

Specialist Informant Cathy George for instance stigmatises the great density of use of will in some reports she has to edit, especially those written by economists who are Non Native Speakers of English (NNSE). In these, virtually every prediction may be expressed by will which, although grammatically correct, is a type of English she says their institution prefers not to publish. In her words:

"When we get reports from the Germans for instance they say they will do this, they will do that... we soften all that" (her emphasis)

(Vol.II, p.141)

Part of the explanation for her refusal may well relate to the fact that the overuse of will is an oversimplification of language which is likely to be characteristic of interlanguage rather than of professional language. Notice here how Cathy George characterises it as frequent in reports emanating from German economists.

In spite of this awareness by NSE forecasting report writers, it is apparent in the corpus that they seldom do completely without making use of will. There

are probably several reasons for this. One of these seems to be when the writer wishes to propose a forecast which is the result of mathematical reasoning. Being an indexical feature of Strong Author Involvement, will is most likely resorted to here to mean "it cannot be otherwise". This is evident especially in places where forecasts are built around a diagram, as in example (33).

- (33) (1a) Graph 2 illustrates the extent (1b) to which real money supply growth has 'led' growth in total domestic demand (TDD) since the start of 1970s. (2a) The suggestion from the graph would be (2b) that the year-on-year change in TDD will fall further in the fourth quarter, by an amount consistent with quarterly changes in both TDD and GNP (2c) (given our view on the external balance - (2d) see below) (2c) of between 2 - 3% (annualised rates) - (2e) broadly in line with the 'flash' estimate of 2.8%. (IES, Dec.84, p.2)

In this example, the prediction expressed in proposition (2b) derives from the writer's observation of the trend of the variable under consideration (change in TDD) over an extended period of time. The prediction seems to be the result of a customary extrapolation in Economics which presupposes that when all the factors influencing the trend in a particular economic variable remain constant, the trend noticed is likely to continue.

Alternatively, the writer may want to use **will** to make a prediction which is held by economists to be an accepted pattern of economic behaviour or to express a prediction that arises out of an assumption. This

appears to be the case in example (34).

- (34) (1a) However, this does not of itself point to overrun of the borrowing target, (1b) given the Chancellor's expectation (1c) that virtually all borrowing will be concentrated in the first half of the financial year. (2a) (The pattern of tax receipts normally leads to some front loading of borrowing, (2b) and this will be reinforced by the concentration of public sector asset sales in the winter, together with 'windfall' income from the new system for paying VAT on imports, (2c) which comes into effect on 1 November).
(Uk-FS, 5/9/84 p.4)

Here, the prediction carried in proposition (2b) can be seen as a customary expectation of a normal pattern of tax receipts, while the prediction expressed in proposition (2c) can be seen as an assumption, though one attributed here to the Chancellor.

The use of **will** in these reports also looks constrained by syntactic constructions resorted to by the writer. It is noticed for instance that **will** consistently co-occurs with extraposed constructions such as it is assumed that X will p, it seems likely that X will p, it is expected that X will p etc.

I shall argue in chapter six that in such constructions will ceases to be an indexical feature of Strong Authorial Involvement.

The deductive aspect characterising this move, on the other hand, is signalled by such deductive and summative markers as therefore, overall, all in all etc., as illustrated in examples (22) and (24) above, or

minor and to be assigned to the BASIS move.

4.4.2.2 Optional Move

4.4.2.2.1 Assessing Risks to the Prediction

Assessing Risks to the Prediction (labelled RISK in this model) refers to that portion of the text where the author draws attention to a set of factors that he has not previously taken into account in projecting future trends but which it is feared might compromise or modify the fulfilment of the major prediction.

The RISK move entails an alternative prediction of future trends and, like any other major prediction, has a mini basis. The Basis of the Risk move seems, in the corpus, to have the form of a conditional clause which implies that the materialisation of the condition would impede the fulfilment of the writer's prediction of future trends. An example is (5a).

(5a)

! MOVE	! TEXT	!
! PFT	! (5a) Because of this, (5b) the Belgian Franc	!
!	! may see its position strengthen somewhat	!
!	! against the D.Mark, (5c) thus allowing some	!
!	! reduction in the excessively high 5 - 6 point	!
!	! interest rate differential.	!
!	! (6a) However,	!
!	! there would be little scope for a decline in	!
!	! short-term interests (6b) if eurodollar rates	!
! RISK	! were to rise further.	!

(Text 24)

In this example, we can see that after making his prediction in propositions (5a) to (5c), the author has

gone further to consider what he thinks might prevent the materialisation of the prediction. The example is ostensibly different from the prediction expounded in proposition (12) of example (36) below which is seen simply as an extension of the major prediction, found in proposition (11), rather than a RISK to its fulfilment.

(36)

! MOVE !	TEXT	!
! PFT !	(11) Until then, German long-term rates are	!
!	likely to remain close to present levels.(12)	!
!	But a further rise cannot be discounted.	!
!		!

(Text 26)

In addition to the conditional clause, the move can be signalled by such lexical items as risk, problem, uncertainty, as in example (37).

- (37) (15a) The forecasts suggest a growth in GDP of about 1 to 1.5 per cent in each of the next two years, (15b) but there are downward risks to this outcome. (16a) Although there may be a small recovery in employment, (16b) the rate of unemployment seems likely to continue to rise by perhaps a further 1.5 percentage points (16c) (to 7 per cent of the labour force) (16b) by the end of 1985. (Text 47)

All in all, RISK is certainly an optional move in these texts, since it is only found in a number of texts of the operational corpus (See for example texts 24, 32, 34, 45, 47, 49, 87).

4.5 Ordering of the categories of the schema

Further to the categories of the schematic structure described in the preceding sections of this

chapter, the present analysis also reveals a number of realisation patterns related to their ordering. In other words, the analysis suggests a variation in the sequencing of moves within episodes, episodes within the schema, and where applicable, the schemata themselves. The schematic categories can therefore be realised in canonical order, they can be embedded or juxtaposed, or else project an unorthodox realisation pattern altogether. These different types of ordering are examined below, each in turn.

4.5.1 Canonical order

Canonical form or order is usually used in discourse studies to refer to the fundamental schematic structure of a discourse or type of discourse, and to the form of that structure, "with respect to which transformations can be defined" (Dijk & Kinstch, op.cit: 92 & 240).

The fundamental structure of the forecasting schema, as enacted in the sector review section of economic forecasting reports and surveys, is that outlined in the preceding sections. It is to be noticed that this schema consists of two episodes, namely the REPORTING episode and the PREDICTING episode.

The most common realisation form of this schema in the texts of the operational corpus is that in which the REPORTING episode precedes the PREDICTING episode. This order reflects a certain logic, typical of such texts,

that one first relates previous or current developments in the market or economic sector under survey before attempting to contemplate how the sector could develop in a foreseeable or distant future.

Only texts 35, 37, 55, 56, 72, 75 and 94, representing 7% of the body of texts reflect a schema starting with the Forecasting rather than the Reporting episode. Such an order is labelled **Episode Inversion** in the present analysis.

Text 35 for example (see analysed corpus) begins with an **attributed forecast** used by the writer as the Basis for his own subsequent predictions. (For more about **attribution** as a strategy of modulating prediction, see chapter 7).

At the move level, however, the canonical order of the moves within the basic schema is that expounded in the sequence:

!	DPT	+	REASON	+	BASIS	+	PFT	!
---	-----	---	--------	---	-------	---	-----	---

In the texts, this order undergoes a number of transformations. The first is that in which additional or optional moves are found. This is a transformation termed in the present analysis **extended schema**. In this case, another move called **Revision** is found additional to or in lieu of the DPT move and another one, **Risk**, is found additional to the PFT move. The Risk move, however, is predominantly adjacent to the PFT move.

Example (6), quoted earlier illustrates this transformation to the canonical structure, which is at the same time a type of discourse variation noted in the realisation patterns of the schematic structure of market/Economic sector review texts.

This transformation, where any of the two optional moves is found, accounts for the structure of 12 out of the 100 texts of the operational corpus.

The second realisation form of the canonical structure is that in which all the moves are **discrete**, i.e. clearly discernible, as in most of the examples quoted previously. In this case, the moves are usually clearly signposted and therefore easy to identify and demarcate. This form accounts for the structure of 68 texts.

A great many texts, on the other hand, reflect a structure in which the moves are **merged** rather than discrete. Here, we allude to cases where a chunk of text denotes a dual rather than a single function. The most common trend in the corpus is to merge either the fundamental moves of the Reporting Episode or those of the Predicting Episode. No merger of moves belonging to different episodes has been observed. This provides further evidence of the characteristic distinction authors seem to maintain between Reporting and Predicting in this type of writing.

Example (38) illustrates a merging of moves in the Reporting Episode while example (39) provides an

instance of merged moves in the Predicting Episode.

(38)

! MOVE	! TEXT	!
! DPT +	! (1a) Led by strong exports of traditional	!
! REASON	! goods as well as oil and gas, (1b) the	!
!	! economy recovered from a cyclical trough by	!
!	! by mid-1983, (1c) and recorded surprisingly	!
!	! high GDP growth of 3. 25 per cent. (2a)	!
!	! Private consumption grew only moderately,	!
!	! (2b) despite real income gains (2c) as the	!
!	! savings rate increased, (2d) and investment,	!
!	! apart from the oil sector, was weak both in	!
!	! industry and residential construction. (3a)	!
!	! With relatively strong productivity	!
!	! performance, (3b) unemployment rose	!
!	! appreciably, (3c) although it remains low	!
!	! by international standards. (4) Inflation	!
!	! decelerated steadily through the year. (5a)	!
!	! Boosted by oil and gas revenues, (5b) the	!
!	! account posted a record surplus of almost	!
!	! \$2 billion (5c) (4 per cent of GDP).	!

(Text 48)

This example illustrates an order in which descriptions and reasons are intertwined. Virtually every proposition in the extract denoting a description is preceded or followed by a causal proposition. While propositions (1a), (2b), (2c), (3a) and (5a) are REASON clauses, propositions (1b), (1c), (2a), (3b), (3c), (4) and (5b) are DESCRIPTION clauses. It is however true that at the micro-level of the sentence, the order is that of CAUSE and EFFECT with the CAUSE clause sometimes preceding the main clause, as in propositions (1a) to (1c) and sometimes following it, as in propositions (2a) to (2c). These propositions are so intertwined that it is difficult to gauge an overall function of the chunk other than as a merged or mingled DPT and REASON,

especially as the number of REASON propositions, amounting to six, and that of DESCRIPTIONS, amounting to seven, is nearly even.

Example (39) on the other hand, an extract relating to future developments in the Dutch economy, is a forecast made using many Reason/Basis propositions, namely propositions (18), (19c), (20a), (24a) and (25c) mingled into a dominant PFT move, which in turn is expounded by the remaining propositions of the chunk. The text is drawn from the OECD Economic Outlook in which interestingly most texts of the corpus with merged moves are found.

(39)

! MOVE	! TEXT	!
!	!	!
!	!	!
! PFT	! (17a) Nonetheless, the outlook for 1984	!
! +	! remains broadly unchanged; (17b) GDP growth	!
!	! is expected to rise by 1.5 per cent. (18)	!
! BASIS	! This is almost entirely explained by higher	!
!	! export demand and a swing in stockbuilding.	!
!	! (19a) Final domestic demand is not expected	!
!	! to rise, (19b) although non-residential	!
!	! investment growth could improve, (19c) on	!
!	! the basis of current surveys, (19b) by 4 to	!
!	! 5 per cent. (20a) Assuming unchanged	!
!	! policies, (20b) GDP growth may continue at	!
!	! about the same rate in 1985. (21) Exports	!
!	! and private non-residential investment	!
!	! remain the strongest elements of growth.	!
!	! (22a) Continued restrictive policies will	!
!	! reduce government consumption and	!
!	! investment, (22b) while lower transfer	!
!	! payments to households will contribute to	!
!	! an expected fall in private consumption.	!
!	! (23a) Although employment is expected to	!
!	! start rising again in 1984 and through	!
!	! 1985, (23b) the unemployment rate may rise	!
!	! further (23c) to reach 15.5% to 16 per cent	!
!	! by the end of 1985. (24a) Given the	!
!	! depressed labour market and current wage	!

	! the government budget deficit. (9a) These !
	! two factors combined meant (9b) that the !
	! government's attempt to tap the market in !
	! May was more or less a failure. _____ !
	! _____ ! (10) As a !
DPT	! result, the rates on long-term government !
	! bonds went up from 8% in March to nearly 9% !
	! at the end May. _____ !
	! _____ !

(Text 6)

Example (41) provides us on the other hand with an instance of an inversion of the order of the Normally required Moves in the Predicting Episode.

(41)

! MOVE	! TEXT
! _____	! _____
! PFT	! (11) For the period to come a slight decrease !
	! of capital market interest rates is the most !
	! likely outcome. _____ !
	! _____ ! (12a) Firstly, the recent !
	! encouraging news with respect to the budget !
	! deficit, (12b) which did not rise to the !
BASIS	! expected 12.4% of net national income but !
	! only to 11.6% in 1983, (12a) will strengthen !
	! confidence in the present government policies !
	! to reduce the deficit. (13) Secondly, the !
	! business sector's demand for funds will !
	! remain modest as a result of the sharp !
	! increase in corporate cashflow. (14) Thirdly, !
	! the trend in international interest rates !
	! does not preclude a small decrease in capital !
	! market rates. _____ !
	! _____ !

(Text 20)

There are also cases where some of the fundamental moves are **missing**. This is already evident in texts projecting an extended rather than a basic schema, since it entails moves which are deemed optional, i.e. only found occasionally in a very small number of texts where one of the fundamental moves, with the exception of the PFT move, is missing. The PFT move is the defining move

of the schema without which there is no forecasting schema in the first place. Not surprisingly therefore, this explains by definition why this move is omnipresent in every text of the operational corpus. Only text 66 has no apparent PFT move. It is only possible to account for instances where any of the other three normally required moves can be found to be missing. It is for example possible to find cases where the BASIS and the REASON moves are co-referential. In other words, in a text, it may be that the REASON that accounted for past trends still applies to future trends and therefore a separate BASIS move is unnecessary.

4.5.2 Embedding

Embedding refers to a form of realisation in which one schematic category embodies another similar one within it. This realisation form is well documented in schema studies on stories (see Rumelhart, 1984) and its effect on comprehension tested (e.g. Mandler, 1987). Embedding is usually alluded to in order to designate a text structure underlying a story containing another story.

The present analysis, however, suggests levels and types of Embedding in the ordering of the categories of the schematic structure of forecasting texts. Embedding is attested in the corpus at the levels of **schema** and **move** but not at the level of **episode**.

Schema embedding is manifested in texts where more than one topic is developed or in texts where a topic has sub-topics and which are structured in such a way that one sub-topic is dealt with entirely as a component of another one. The embedded topic or sub-topic is carried in a chunk of text which also projects the basic schematic structure of forecasting texts.

This is the case illustrated in example (4) quoted earlier, an extract which centres around the sub-topic supply/production of lead. The structure of this extract has the components of the basic schema, namely the DPT, REASON, BASIS and PFT moves, which correspond to parts I, II, III and IV of the text. Since this extract which projects a basic schema is found within a larger text, which in turn has an overall structure, we refer to the structure of the embedded extract as an **embedded schema**, which is to be found in 10 texts of the corpus.

This type of ordering differs from another one attested at the level of Move. We find the **move embedding**, which is similar to clause embedding (Huddleston, 1984: 279-280) in that a full sentence or a clause, expounding a move, is entrenched in another sentence or clause which expounds another move. The syntactic move embedding, therefore suggests a physical inclusion of a sentence/clause within another one thought to be superordinate. Examples (42) and (43) below illustrate this type of move embedding. While

example (42) provides an instance of an embedded move which is a clause, example (43) on the other hand, illustrates an embedded move which is realised as a sentence.

(42)

! MOVE	! TEXT	!
! DPT	! (1a) After a strong but temporary rise (1b)	!
! REASON	! due to speculative pressures before the	!
	! parity realignment of 21 March 1983, (1a)	!
! DPT	! (1a) money market rates have fallen to a	!
	! level last reached in 1979. (2a) In May, the	!
	! three months' interbank rate stood near 10%	!
	! (2b) and the long-term government bond rate	!
	! at 12%. (3a) Thus, short-term rates have	!
	! tended to fall below long-term rates, (3b)	!
	! in continuation of a recent trend towards a	!
	! more normal yield curve.	!

(Text 2)

In this example, proposition (1b) which expounds the REASON move and which in turn is embedded in the DPT move is a clause. In example (43) below, proposition (2) shows that the DPT move which is embedded in the REASON move is realised as a full sentence.

(43)

! MOVE	! TEXT	!
! REASON	! (1a) With another lowering of its discount	!
	! and Lombard rate by a full percentage point	!
	! to 4% and 5% respectively, (1b) the	!
	! Bundesbank in mid-March took a further step	!
	! (1c) to support domestic economic activity.	!
! DPT	! (2) Day-to-day money rates declined	!
	! correspondingly to around 5%.	!
! REASON	! (3a) The	!
	! Central Bank's easing of policy was	!
	! facilitated by the continuing decline in	!
	! the German inflation rate (3b) (now about	!

! 3%) (3a) and an increasing current account !
! surplus. !
! _____ !
(TXT 4)

In addition to a mere clause embedding however, the move embedding may go beyond the limit of a clause and sentence to encompass instances where the embedded move is expounded as a group of sentences. This is illustrated by example (44).

(44)

MOVE	TEXT
DPT	(7a) Since January 1984 the Dutch long - term government rate - (7b) the yield on the most recent long-term government bonds - (7a) has moved between 8.4% and 8.6%. _____ ! (8a)
REASON	Because of the strength of the guilder and the low inflation rate (8b) a decline in yields has seemed possible, (8c) but international factors have prevented this. _____ !
PFT	(9a) In the near future a slight decrease looks probable, (9b) certainly if long-term rates in the US and Germany fall. _____ ! (10a)
BASIS	This expectation is not only based on the arguments mentioned above (10b) but also on the narrowing of the budget deficit of the Dutch government. (11) The recent economic upturn has resulted in an adjustment of the budget figures for this year. (12a) According to the most recent forecasts (12b) the deficit as a percentage of net national income will decrease from 11.5% in 1983 to 10.7% in 1984. (13) Moreover, the State has already financed about 65% of its financing needs for this year during the first five months of 1984. (14a) A decline in borrowing by the State, together with weak private sector demand, is an additional factor ! _____ ! (14b) which creates room
PFT	for a decrease of long-term rates in the near future. _____ !

(Text 28)

In a restricted number of texts (18), we find several layers of syntactic move embedding. This order is a typical case of RECURSION that Crookes (op.cit) and Swales (1986b) have also noted with regard to the structure of Introductions to Academic journal articles. An example of such an ordering could be found in Text 63 (see Appendix 2) in which the PFT move for example is seen over and over again throughout the entire text.

4.5.3 Juxtaposition

Like Embedding, **Juxtaposition** is a type of ordering of in which more than one topic or sub-topic are developed. Unlike embedding, however, juxtaposition is only attested at the schema level, and refers to a type of ordering of schema categories underlying texts which display a superposition of topics or sub-topics dealt with entirely one after another. Juxtaposition is a type of ordering which suggests that the writer has given equal weight to the topics or sub-topics developed, as opposed to embedding in which the writer suggests a relation of subordination/superordination.

Example (2), quoted earlier, illustrates this type of ordering, so does example (45) below.

(45)

! MOVE	! TEXT	!
!	!	!
! DPT	! (1a) Despite the distinct improvement in !	!
!	! foreign trade performance and the firmness !	!
!	! of the franc within the EMS, (1b) no !	!
!	! reduction in money market rates has been !	!

	possible in recent months.
REASON	(2a) The main reason for this has been the persistent upward pressure on US interest rates, (2b) which was responsible for the recent rise in the West German Lombard rate. (3a) The day-to-day rate has thus remained around 12.5% (3b) but with less Bank of France intervention in the money market it has moved within a somewhat wider band (3c) and now reflects more closely the fluctuations in supply and demand.
BASIS	(4a) It is true (4b) that a certain easing of rates might be expected (4c) now that the Government's more rigorous economic policy is beginning to produce positive results: (4d) inflation in annualised terms will scarcely exceed 7% in the second half of the year, (4e) whilst the average monthly trade deficit has been halved to FF4 bn. (5a) Moreover, the demand for credit is notably slacker (5b) (12% is forecast for 1983, against 18% in 1982). (6a) Nevertheless, the international environment remains uncertain; (6b) a decline in US rates and weakening of the dollar would have an adverse effect on the franc's performance against the Deutschmark.
PFT	(7) As such, any drop in short-term rates in France during the months to come will only be modest.
DPT	(8a) Bond yields, (8b) virtually unchanged throughout the second quarter of the year, (8a) dropped about half a point during the summer and (8c) are now in the region of 14.!
REASON	(9a) This reduction may be explained by the fact (9b) that the Delors' plan is starting to show signs of success, (9c) but it was also due the expectations of a drop in short-term rates, (9d) as reflected in the structure of term rates on the money market in July. (10a) Moreover, given favourable fiscal treatment, the high level of real interest rates (nearly 5%) and the recent 1% cut in interest on savings accounts, (10b) investor demand for bonds has remained high. (11a) Consequently, in the first nine months of the year bond issues, (11b) including the FF25 bn State loan in September, (11a) totalled FF135 bn, 32% higher than the figure for the corresponding period of 1982.

!	!	!(12a) However, !
!	!	the day-to-day rate would now seem to be a !
!	!	barrier to any further decrease in bond !
!	BASIS	yields (12b) since 12.5% is equivalent to !
!	!	an annualised rate of 13.5%. _ !
!	!	!(13) In view of !
!	!	this, no significant reduction in long-term !
!	PFT	rates is expected until short rates !
!	!	decline. !
!	!	! !
		(Text 10)

Text (10) above is a particularly good example illustrating two variations in the ordering of the categories of the schematic structure. It illustrates both the canonical order of the moves of the fundamental structure of forecasting texts (Basic schema), and is at the same time a clear case of **juxtaposed schemata**.

Bearing the notion of topic in mind, we may notice that the text, which is about developments and prospects in Interest rates in France, first discusses the market of short-term rates (sub-topic 1) and later that of long-term interest rates or bond yields (sub-topic 2). Sub-topic 1, is dealt with in the portion of the text which runs from propositions (1a) to (7), while sub-topic 2 is carried in propositions (8a) onwards.

Both sub-topics are developed in the same way in that they start with a description of previous trends, portraying the evolution of trends in the markets of short and long-term interest rates in France from the recent past to the moment of writing. The DPT move is expounded in propositions (1a) to (1b) for sub-topic 1 and (8a) to (8c) for sub-topic 2. The information imparted in these propositions is factual in that the

market situation depicted is the one that we can trust actually took place. In both cases the time span is given: recent months, second quarter of the year, summer, now. To interpret now, one has to refer to the date of publication of the report which in this case is September 1983.

Propositions (2a) to (3c), and (9a) to (11b) expound the REASON move respectively for sub-topics 1 and 2. Interestingly, the move in both sub-topics is marked by Vocabulary 3 items of causal relation reason (see proposition 2a), reflects in proposition (3c) and explained in proposition (9a). The anaphoric this in the clauses clearly refers to the trend described in the foregoing DPT move. due to in proposition (9c) and given in proposition (10a) are further explicit markers of the REASON move in the text. Unlike the DPT move where the writer gave a straightforward description, here he obviously attempts to state why he thinks the trends in the markets of short and long-term interest rates have been as have occurred. Such an account reflects his own opinion.

This opinion is continued on in propositions (4a) to (6b) and in propositions (12a) to (12b), whose main function is to serve as BASIS for the main predictions about future trends, respectively in short-term Interest rates (Sub-topic 1) and long-term Interest rates (Sub-topic 2). The Basis for the prediction of sub-topic 1 is

typical in that we find an outline of the writer's assumptions, characterised by minor predictions which are expounded in propositions (4b), (4d) and (5b) but which are subsequently evaluated in propositions (6a) and (6b). The evaluation is signposted by the concessive marker nevertheless. For both sub-topics, the main prediction or PFT move which is expounded in propositions (7) and (13), follows as a deduction from the argumentation contained in the Basis. The deductive relation is marked on the surface by as such for sub-topic 1 and in view of this for sub-topic 2.

Therefore, although both schemata underlying portions of text centring around sub-topics 1 and 2 are basic with canonically ordered moves, they are juxtaposed in that sub-topic 1, (short-term interest rates in France) is dealt with thoroughly and entirely before tackling sub-topic 2 (long-term interest rates in France). It could also be argued that both schemata are independent of each other.

Juxtaposition is a major type of ordering of schema categories in the present corpus and occurs in 49 texts, though it should be noted that only 1 of these texts is drawn from the OECD source. This last point suggests that the order of the categories of the schematic structure could be indexical of a house style.

Table 6 recapitulates the different realisation patterns of the schematic structure of Economics forecasting texts. **Table 7** provides the number of texts

out of 100 in which each pattern is realised and **Appendix 6**, gives a detailed breakdown of the realisation patterns in each text.

Table 6: Variation in the ordering of schematic categories

Level \ Order	Move	Episode	Schema
Canonical	+	+	-
Embedding	+	-	+
Merging	+	-	-
Juxtaposition	+	+	+
Inversion	+	+	-
Missing	+	-	-

Note: + = applies
 - = does not apply

Table 7: Number of texts illustrating the realisation forms of the schematic structure

Level	Attested Order	Number of instances
Schema	Basic Schema	87
	Extended Schema	12
	Schema Embedding	10
	Schema Juxtaposition	49
Episode	Canonical Order	82
	Episode Juxtaposition	76
	Episode Inversion	7
Move	Discrete moves	68
	Merged moves	58
	Missing moves	29
	Canonical order	56
	Syntactic move embedding	17
	Move inversion	26
	Move recursion	18

4.6 Notes to Chapter Four

(1*) This is a layman definition of the notion of topic, otherwise referred to as a **pretheoretical notion of Topic**. See Brown and Yule (op.cit:68-124) for an interesting discussion of TOPIC as a theoretical notion.

(2*) The word (graph 6) sandwiched between sentences 4 and 5 in this text stands for a real art work omitted here because of technical difficulties of reproduction. Furthermore, the argument about graphs in the corpus has been throughout that most of them do not impinge on the analysis of the schematic structure of the texts in which they are found.

Chapter Five: Modulating prediction by specifying conditions

5.1 Overview

So far we have maintained that forecasting is the essence of the texts under analysis. This notion is, at the macro-level of discourse both a schema and a genre label, while at the micro-level it refers to a group of predictions, one of which is central, found in one of the episodes of the forecasting schema. While the analysis of the schematic structure has provided the framework within which these economic predictions are found, we also argue that economic forecasters modulate these predictions by using a number of strategies, which in fact are expounded in the text by a number of linguistic devices.

Specifying conditions is one such strategy authors use, along with **Hedging** and **Attribution** dealt with in the next two chapters of the thesis.

This chapter thus is an attempt to account for the use of conditions by economic report writers to modulate their predictions. For this purpose, the following factors are taken into consideration:

1. the different functional types of conditional predictions arising out of an examination of the varying motivations writers may have in proposing a conditional prediction. Also, the extent to which these writers appear to be committed to or detached from their

predictions. The types of conditions are discussed against the discourse context where the predictions which they qualify are found.

2. the grammatical categories of the conditional clause of the conditional prediction, in terms of the meaning of the clause, its syntactic structure as well as characteristic markers of identification.

3. the significance of the syntactic position of the conditional clause in Economic Forecasting, by discussing the extent to which the choice of position of the clause does or does not affect the prediction it qualifies.

In other words, this chapter examines why, where and how conditions are used in the corpus as an authorial strategy of prediction modulation.

The different categories of conditions are firstly exemplified with sentences marked by IF, because IF is the most widely known conditional marker. As the discussion about each type progresses, it will emerge that there are scores of other conditional markers which have been discussed less in the relevant literature but which, incidentally, also require study. However, it should be pointed out that the focus of attention in this chapter is on **conditional predictions**.

Grammatically, a conditional prediction consists of at least two clauses; the main clause being a prediction of a future economic trend or event, while the subordinate clause(s) is a conditional and is

prediction modulation, for the purposes of hypothesizing, disclaiming, reinforcing or revoking a scenario as a likely development of future economic trends or events.

We examine each of these types of conditional predictions in turn and show that each functional type is marked by a different grammatical type of conditional, which can be realised in different linguistic forms. These conditional forms give the reader of economic reports some indication of authorial commitment to or detachment from the economic predictions.

5.2.1 Hypothetical Conditional Predictions

5.2.1.1 Use

A major use of conditions to modulate predictions in the corpus is for the purpose of **hypothesizing**. Economic Forecasters may wish to release a Hypothetical Conditional prediction for a number of reasons.

For example, the author may consider that an existing or forthcoming fact, action or event of political, industrial or economic interest, is likely to be a factor to be taken into account before a given prediction can be fulfilled. Such a reason may be illustrated by the following example.

- (2) (1a) At the time of writing, US prime rates are down to 11.5 per cent (1b) and will go lower still (1c) if the Federal Reserve Board ignores its monetary targets

a while longer (1d) and cuts its discount rate again. (WCO/83, p.2)

It can be said that in the writer's opinion, the fulfilment of the prediction that American interest rates will fall is made dependent upon a prior materialisation of a double action to be taken by the Federal Reserve Board, the governing board of the American Central Bank. This action is for the Board to ignore its monetary objectives and cut further the discount rate it has set up. Should the Board not take this action first, a fall in American interest rates may not occur.

Another reason may be that an existing or forthcoming fact, action or event is likely to be a factor nullifying the fulfilment of a given prediction. This is what (3) exemplifies.

- (3) (1) The various existing schemes to reduce unemployment will cease producing additional effects next year. (2a) If these are not supplemented, (2b) the unemployment rate will probably rise rapidly during the forecast period, perhaps to almost 11 per cent by end-1985. (OECD/84, p.93)

In example (3), the scene is set for a rapid rise in unemployment during the period covered by the forecast. However, in the writer's view, the occurrence of the condition that existing schemes for reducing unemployment be supplemented, will automatically stop the materialisation of the prediction of a rapid rise in unemployment.

At times the writer may wish to propose a

hypothetical conditional forecast to expand on a foregoing, more important, prediction. An example is (4).

- (4) (1a) However, our central view, (1b) that there will be a rebound in both the monetary aggregate and in economic activity towards the end of the year and in early 1985, (1c) has been reinforced by the fall in interest rates. (2a) If this view is borne out, (2b) market expectations of Fed policy will probably be reversed again and (2c) period rates would be back on an upward trend.
(IFS,16/11/84 p.2)

The fulfilment of the predictions in (4) about Fed policy and period rates is made dependent upon the materialisation of the foregoing prediction found in proposition (1b). The conditional clause (proposition 2a) is seen as marking the subsequence between the foregoing central - hence more important - prediction and the following subsidiary -hence less important - predictions. In this example, propositions (2a) and (2b) bear the implied meaning of what, in the writer's opinion, would happen after the prediction found in proposition (1b) had materialised.

The writer may also wish to use the hypothetical conditional prediction to refer to the aftermath of the realisation of a central prediction. By so doing, the writer appears to ask and/or answer the following question: 'What would happen if my prediction(s) is (are) fulfilled according to plan?

To elucidate this type of hypotheticality, let us

consider the following example.

- (5) (1a) Thus, the price trend of NR is unlikely to show any major revival, (1b) at least until the overall demand for rubber begins to pick up. (2a) On this basis, (2b) it is possible (2c) that the price of RSS1 will stay around 50 pence/kg for the next few months (2d) and will fluctuate between 45 pence and 55 pence up to the middle of 1983. (3a) If the forecasts made about demand materialise, (3b) conditions for NR will improve during the latter part of 1983 (3c) and this will be reflected in a higher price structure for RRSS1. (4a) It is possible (4b) that it will reach around 60 pence /kg before the end of 1983 (4c) and will fluctuate within 19 per cent of this price level by the end of the year. (WCO/83, p.94)

The propositional content carried in the conditional clause If the forecasts about demand materialise, suggests an anaphoric reference to an earlier prediction proposed by the writer, though not in the immediate textual environment of the hypothetical conditional prediction.

Indeed, this forecast about demand for Natural and Synthetic Rubber is found much earlier in the text where it reads:

- (5a) (1a) The EIU forecasts show (1b) that total rubber consumption will drop by around 4 per cent in 1982 (1c) and will amount to only 11.6 mn tons. (2a) For 1983, demand may total 11.9 mn tons, (2b) which will still be lower (2c) than that recorded during 1980 and 1981. (WCO/83, p.93)

It therefore seems that in some of its uses, the hypothetical conditional prediction denotes the impact the realisation of a foregoing major prediction about

the future trend of an economic variable such as Consumption, Production and Inflation would have on other closely related variables such as Prices (for Consumption and Production) or Interest Rates (for Inflation).

The impact may be positive or negative. In example (5) above, the hypothetical conditional prediction clearly denotes the positive impact -signalled by the lexeme improve- that the materialisation of the central prediction -that Demand for Rubber would grow by 2 to 3 per cent mostly in the second half of the year 1983- would have over a closely related variable, here the resulting higher price for Rubber.

Example (6) on the other hand, illustrates the negative impact of a central prediction, concerning the future trend of an economic variable under consideration, which is signalled by the lexeme disappointed found in proposition (2b). It shows the impact the fulfilment of the central prediction about US interest rates would have on currency markets.

- (6) (1a) Thus our expectations, (1b) stated in our August survey, of a 9% - 11% range for 3 month eurodollar over the next year still stands, (1c) although over the next few months, levels in the bottom half of the range may be more likely. (2a) If this is correct, (2b) the optimistic expectations for US rates (2c) currently prevalent in currency markets (2b) will be disappointed. (IFS, 12/10/83 p.1)

A less popular use of the hypothetical conditional prediction seems to be as merely illustrative of part

of the writer's argumentation. The illustration can be explicit, i.e expounded by such markers as for example, as an illustrative example etc. as in example (7), or implicit, i.e where expounding markers are not found in the sentence though they may still be recoverable, as in example (8).

- (7) (1a) A string of current account deficits
 (1b) like those recorded by the United States (1a) significantly change the international investment position of a country and its net receipts of income in investment. (2a) According to the projections here, (2b) over the four - year period ending in 1985, the United States will have recorded a cumulative deficit on current account of the order of \$250 billion. (3a) As an illustrative example, (3b) if it is assumed (3c) that the relevant interest rate is 10 per cent (3d) this, by itself, would cause a deterioration of net income on investment of \$25 billion by 1986, (3e) and require a non-negligible depreciation of the dollar to induce an offsetting improvement of trade flows. (OECD/84, p.68)

The hypothetical conditional prediction, found in proposition (3a) onwards, is used here to give the reader an idea of the extent of the damage the American budget deficit would have on investment in the country, should the prediction imparted in proposition (2b) prove to be correct. In a way, proposition (3a) onwards elaborate on the idea imparted in proposition (1a), which is the negative impact of current account deficit on investment position and investment receipts of a country. The United States of America is here taken as the exemplar. In example (7) especially, the illustrative function is explicitly expressed by the

phrase As an illustrative example, which introduces the conditional prediction itself.

In example (8) on the other hand, the impact of a future economic action or event over other closely-related variables is illustrated implicitly, though it is contended here that the illustrative aspect can be made explicit by inserting such expressions as for example, as an illustration, or as an illustrative example and so forth.

The writer discusses in example (8) the impact of insolvency, a common problem for developing countries, on bank lending.

- (8) (1a) There have been reports (1b) that regional US banks have been much less enthusiastic than lead managers about one of South Korea's now fairly regular loans. (2a) How much less likely they are to be enthusiastic about lending to almost any Latin American borrower, (2b) if reluctant to lend to the comparatively solid South Korea. (3a) If a major borrower were now to cease interest payments, (3b) a major lender could find itself facing liquidity crisis (3c) as interbank loans were withdrawn, (3b) and a solvency crisis (3d) as provisions against non-performing assets ate into capital and reserves. (4a) The ratio of capital and reserves to assets has dwindled alarmingly in the last decade, (4b) and the risk of insolvency is consequently now greater. (5a) Doubtless central bank intervention would save the day, (5b) but the effect on bank lending and on confidence in general would be severe. (WCO/83, p.5)

5.2.1.2 Context of occurrence

The hypothetical conditional prediction has a varied contextual distribution. A distinction may be set up between what from the writer's viewpoint can be seen as **definite** and **indefinite** hypothetical conditional predictions.

The first category includes hypothetical conditional predictions that occur as central predictions irrespective of the nature of the conditional clause, i.e whether positive or negative. The second category refers to the ones that are found in the Basis or Risk parts of the schema.

As central predictions, the contextual distribution of hypothetical conditional predictions is similar to that of any central prediction viz, it is generally found to be sandwiched between the Basis, which may denote a cause, an assumption or any other factual evidence on which the major prediction is founded, and Risk. This distribution holds for hypothetical conditional predictions whose conditions are positive as in most of the examples mentioned earlier, or negative as in example (9) below.

(9)

!-----!	!-----!
! Move	! Text
!-----!	!-----!
! BASIS	! (1a) Provided that no major catch-up of wages!
!	! occurs in the collective agreements during!
!	! 1984, (1b) and given the freeze on public!
!	! utility charges this year,!-----!

!-----!	!-----!	!(1c) inflation is!
! PFT	! likely to slow markedly.	!
!-----!	!-----!	!

(OECD/84,p.106)

In this example, it may be argued that the true meaning of proposition (1a) is that of an assumption rather than a mere negative condition. The writer is assuming or supposing that no major wage increments will happen during the forecast period. In this case again, the position of the conditional clause (1a) appears to be significant; a point we shall return to in section 5.4 discussing the position of the clause marked by the unmarked conditional.

As supporting prediction in the BASIS, the hypothetical conditional prediction is likely to be followed by a major, central prediction which summarises the writer's definite view about the future trend of events. This distribution is consistent in the corpus and can be explained by the fact that BASIS generally occurs prior to the central prediction in the schema.

A further example to corroborate the pattern is (10).

(10)

!-----!	!-----!	!-----!
! Move	! Text	!
!-----!	!-----!	!-----!
! BASIS	! (1a) However, if the strike is acrimonious,	!
!	! (1b) a strong price boom is a distinct	!
!	! possibility.!	!-----!
!-----!	!-----!	! (2a) By the end of June 1983,
! PFT	! we forecast that the LME price will have	!
!	! reached £1,050 per ton (2c) and we expect it	!
!	! to be £1,150 by the year end, with the	!
!	! annual average in the region of £,050.	!
!-----!	!-----!	!-----!

(WCO/83, p.12)

One clue for discriminating supporting from central prediction is TOPIC development. In example (10), we gather from the discourse that the prediction concerns LME prices and the Basis encompasses factors the writer thinks are likely to influence the future course of events, one of which is the strike. Sometimes however, the hypothetical conditional prediction may follow the central prediction as the example below shows.

(11)

!	-----!	-----!
!	!	!
!	Move	! Text
!	-----!	-----!
!	PFT	! (1a) On balance we expect (1b) that monetary !
!	!	! policy will not be tightened significantly !
!	!	! (1c) but that M2 is more likely to threaten !
!	!	! the upper limit than the lower limit of the !
!	!	! the target range. !-----!
!	-----!	-----!
!	!	! (2a) In the event of any !
!	!	! tightening (2b) its extent would be severely !
!	!	! limited by consideration of the adverse !
!	BASIS	! effect of higher interest rates on the major !
!	!	! LDC debtors. !
!	-----!	-----!

(IFS, 12/10/83 p.4)

In example (11), it is clear that the hypothetical conditional prediction found in propositions (2a) and (2b) textually follows the central prediction, expounded in the preceding sentence. It may be enlightening to add that sentence (2) here provides the Basis especially for the prediction proposed in sentence (1). The whole argument of the forecast about monetary policy in this example may be paraphrased as follows.

(11a) The tightening of American monetary policy affects LDC debtors. The American authorities themselves are aware of the fact that their monetary policies, notably the resulting higher American interest rates, badly hurt the LDC borrowers. On this ground, one cannot expect them to tighten significantly their monetary policies in the foreseeable future.

The paraphrasing discourse at least enables us to see clearly the ground on which (i.e. on what Basis) the forecast about American monetary policy has been constructed.

The same rhetorical distribution (ie. adjacency to central prediction) also applies to hypothetical conditional predictions with negative conditions. An example is (12).

(12)

! Move	! Text
! Basis	! (14a) Given this context and the continuing ! ! very depressed state of the European Steel ! ! industry in general, !-----!
! PFT	! (14b) the outlook for ! ! 1984 will probably be more or less in line ! ! with the trend recorded in 1983. (15a) ! ! Domestic demand is likely to decline further, !
! Risk	! (15b) but this could be partly offset by a ! ! positive external contribution, (15c) ! ! provided that the expected recovery in non- ! ! steel export is not cancelled out by too ! ! sharp a fall in steel exports. !

(Text 45)

Hypothetical conditional predictions that are not definite on the other hand appear more as an expansion of a foregoing argument which is either a prediction in itself or a reason. Such predictions appear to have the

connotation of "for the sake of argument". The indefiniteness of such conditional predictions can be captured in the corpus by the fact that in general they are negatively evaluated. In such cases, the evaluation is the writer's actual prediction which he would like the reader to retain.

This rhetorical distribution may be illustrated by considering the context provided in example (13).

- (13) (1a) Prices are expected to rise modestly,
(1b) climbing slowly on the back of the
base established quite firmly in 1982 to
around \$205 per Cu m for unsorted redwood,
\$160 for fourths. (2a) Should there be any
sudden increase in demand, even by just a
few of the major importers, (2b) then
there would undoubtedly follow a price
explosion in timber values. (3a) All the
forecasters see little likelihood of such
an event (3b) happening against a
background of a world economy (3c) coming
only slowly out of recession, (3d) even if
such modest progress proves possible.
(WCO/83, p.98)

In this example, propositions (2a) and (2b) represent a conditional prediction that expands another prediction found in proposition (1a). It shows the extent of the price rise in the event of a sudden increase in demand. The hypothetical conditional prediction found in propositions (2a) and (2b) is discarded by the writer as a possible development by propositions (3a) to (3d). In these propositions, the author negatively evaluates the likelihood for the hypothetical conditional prediction to materialise. The evaluation, though an attributed prediction itself (see chapter 7), represents the writer's own assesement of

the likely future course of events.

5.2.1.3 Markers of the Conditional clause

The Conditional clause of the Hypothetical Conditional Prediction is both explicitly and implicitly marked. Explicitly, the conditional clause is marked by the **unmarked conditional**, while implicitly, it is marked by what are referred to here as **Hidden Conditionals**.

5.2.1.3.1 The Unmarked Conditional

In Grammar, an unmarked term is known to be one that is syntactically basic. It is opposed to the marked term which is held to be most conveniently described by reference to the way it differs from an unmarked term (Halliday, 1985; Huddleston, op.cit:11).

This distinction is maintained in the thesis to designate the conditional forms modulating the predictions. Unlike the standard dichotomy, however, the marked conditional forms have been found in the corpus to be various and different labels have therefore been given to them, reflecting their roles vis-a-vis the predictions they qualify.

In the present analysis, the **unmarked conditional** entails a sufficient but not necessary nor sole prerequisite to the realisation of the prediction. Example (14) illustrates such a conditional.

- (14) (12a) Furthermore, if trade rumours (12b) that the Government is planning to introduce VAT on children's shoes (12a) prove correct, (12c) then this sector could well experience a sharp increase in price competition, (12d) with the probable result (12e) that domestic manufacturers would lose market share. (Text 99)

Example (14) contains a prediction which seems to denote what would necessarily follow should the British Government's planned action of taxing children's shoes materialise. As in the foregoing predictions, in example (14) the prediction of a sharp increase in price competition in the commodity sector of shoes can only be fulfilled after the condition, which is the antecedent, has materialised. However, the writer cannot be said to rule out the possibility of his prediction being affected by the existence of other conditions which may or may not be known to him.

The unmarked conditional, which must be seen to have the force of an **assumption** upon which the prediction is based, qualifies a prediction occurring in any of the discourse contexts in which hypothetical conditional predictions are found. In other words, the unmarked conditional can be used to modulate a prediction in the Basis, the PFT, or the Risk moves of the forecasting schema. Let us consider each of these shades of the unmarked conditional usage in turn.

(15)

! Move	! Text	!
! BASIS	! (1a) There is also evidence (1b) that	!
	! consumers are resisting further output price	!
	! rises (1c) (as indicated by an easing of	!
	! European plastic prices in recent months).	!
	! (2a) This may be partially offset (2b) if	!
	! there is a weakening of sterling against the	!
	! Deutschmark (2c) (the currency in which	!
	! European sales are made).!-----!	!
	!-----!	!
! PFT	! (3) On balance,	!
	! however, growth profit is likely to be far	!
	! more muted in 1985 than in recent years.	!
!-----!	!-----!	!

(IS,12/11/85, p.4)

In example (15), the unmarked conditional found in proposition (2b) qualifies a prediction, found in proposition (2a) which is being used as part of the argument in the basis for the central prediction carried in proposition (3). It denotes the writer's own supposition about developments in exchange rates which he sees as influencing the trend in profit growth. The assumption counter-balances the factual argument carried in propositions (1a) to (1c). The factual nature of the argument is expounded by lexemes evidence found in proposition (1a) and indicated, found in proposition (1c). By stating (2b), on the other hand, the writer is not committing himself to the fact that the fulfilment of the condition will necessarily trigger that of the prediction, expounded in proposition (2a). The condition may therefore be said to be aleatory.

In example (16), on the other hand, the unmarked conditional, found in proposition (1d) qualifies a

central prediction, which in turn is expounded in proposition (1c).

(16)

! Move	! Text	!
! BASIS	! (1a) Higher rates are not justified by ! ! domestic conditions (1b) and, as the ! ! economic recovery is less robust in Canada ! ! than in the United States	!
! PFT	! (1c) we expect the ! ! emphasis of policy to shift towards lower ! ! interest rates (1d) if there are signs of a ! ! weakening in the US dollar.	!

(IFS,30/5/84 p.4)

Finally, example (17) illustrates an instance where the unmarked conditional is marking a conditional clause which is modifying the strength of what the writer sees as a threat to the materialisation of his forecast (i.e Risk to his prediction).

(17)

! Move	! Text	!
! BASIS	! (1a) The rise in consumer prices, (1b) given ! ! + the big carry - over from end 1983, (1a) may ! ! PFT average 27 per cent.!	!
! RISK	! (2a) But if there is a ! ! further reduction in subsidies, (2b) the ! ! inflation forecast would be jeopardised.	!

(OECD/84, p.21)

In this example, propositions (2a) and (2b) nullify the central prediction (proposition 1a) which also embeds its basis (proposition 1b). The entire propositional content of (1a) is reiterated in proposition (2b) by the single expression inflation forecast in which inflation stands for rise in consumer prices. The materialisation of the condition in

proposition (2a) would cause a much higher price than forecast, presumably because subsidies help keep consumer prices down.

5.2.1.3.1.1 Forms of the unmarked conditional

The basic form in which the unmarked conditional is expounded is **IF**, which means in the present analysis something like **in the hypothesis of** (not attested in the corpus), or **on the assumption of** (which is attested in the corpus).

Therefore, in an example such as (18), the conditional form **if**, can be paraphrased by **assuming that**, without impeding the meaning of the forecast.

- (18) (1a) On the other hand, **if** current precious metal prices are consolidated by a further fall in interest rates, (1b) there is every chance (1c) that gold and silver will average considerably more in 1983 than in 1982, and perhaps not much less than in 1981 (1d) (when gold averaged \$460/oz and silver \$10.52/oz). (WCO/83, p.3)

IF may also be realised as **If... then**. An example is (19).

- (19) (1a) The timber trade was helped by the significant growth in timber frame construction for new houses, (1b) and **if** the larger slice of the market can be maintained (1c) when recovery eventually comes, (1d) **then** there will be a marked growth in the demand for wood in home construction in the UK. (WCO/83, timber, p.96)

The consensus view in the relevant literature as far as this form is concerned and which is endorsed in

the present analysis is that **then** in **if...then** is redundant and may be omitted without affecting the meaning of the prediction. In other words, the use of **then** in **if... then** sentences is a matter of free variation.

The negative equivalents of **IF** are, on the one hand: **IF - Neg** and on the other **unless**.

If-neg can be realised as:

i. **IF - No**. An example is (20).

- (20) (1a) If no allowance is made for this,
(1b) policy may prove substantially more restrictive than desired. (OECD/84, p.38)

ii. **IF - Not**. This variant, however, may be verbalised as **If + do not + Verb** or **If + be not + Verb**, depending upon the voice of the verb in the conditional clause. Here are the examples.

(21) **If + Do Not + Verb-act**

- (1a) If the public sector borrowing requirement does not exceed the ceiling set by the authorities, (1b) total credit growth could be reduced to 17.5 per cent in 1984, from 21 per cent in 1983.
(OECD/84, p.105)

(22) **If + Be Not + Verb-pass**

- (1a) If production cuts are not maintained in sufficient strength to drive the price above the M\$34.98 level at which the buffer stock may sell, (1b) an alternative would be to lower the price range.
(WCO/83, p.20)

Unless can have the meaning of **if + do not** as in example

(23), **If + Be Not** as in example (24).

- (23) (1a) The gradual reduction in world copper stocks in 1983 ought to be apparent by the second quarter of the year, (1b) although the traditional seasonal weakness of demand in the third quarter will mean (1c) that the stock total will be stable from July to September (1d) unless the US mine strikes prove to be serious.
(WCO/83, p.12)

- (24) (20a) Nevertheless stocks seem likely to begin rising again (20b) unless further steps are taken to cut back production (20c) or in the unlikely event of a substantial recovery in consumption.
(Text 55)

But, as I shall argue later in section 5.4 in which we discuss the significance of the position of the conditional clause, the difference between **if** and **unless** goes beyond mere formal differentiation.

The unmarked conditional form can also be signalled by **provided (that)**, which here means **on condition that**. An example is (25).

- (25) (1a) Over a medium-term horizon, the consequence of providing some extra support for the economy for a short period may not loom large in terms of the trend of inflation, (1b) provided the extra support is withdrawn in a timely fashion.
(OECD/84, p.38)

In this example, the marker provided may be substituted by on condition that without altering the meaning of the prediction.

Again, like IF, the negative equivalent of the marker **Provided (that)** is **Provided (that) NEG** which may have two realisation forms paraphraseable by IF-Not and If-No respectively. The two attested forms are:

i. **Provided that - Not:** as in example (12) quoted earlier, proposition (15c); and

ii. **Provided that - No:** as in example (9), proposition (1a).

Two other characteristic explicit forms that pertain to this group and for which no negative equivalents are attested in the corpus are **should** as in example (26) and **as long as** as in example (27).

(26) (1a) Should the D.Mark strengthen by less against the dollar (1b) than we are expecting over the next six months (1c) the pressures for an adjustment will be reduced. (IFS, 30/5/84, p.3)

(27) (1a) Nevertheless it is unlikely that the price of RSS1 will fall much further (1b) and it should show a gradual improvement during the course of 1983, (1c) as long as world rubber demand shows signs of a sustained recovery. (WCO/83, p.94)

It may be added that as long as especially has the meaning of If X continue to.

Further explicit forms of the unmarked conditional are **without** and **in the event of**.

Without has the meaning of If there be NEG, while In the event of has that of If there BE. Examples are:

(28) (19a) Without further unforeseen climatic or political disruptions, (19b) this pattern of gradually falling prices is likely to continue in 1985 (19c) when a production surplus is expected to re-emerge. (Text 71)

(29) (1a) In the event of a renewed worsening in the dispute, (1b) there is likely to be greater reluctance to respond to exchange rate pressure by raising interest rates. (IFS, 16/11/84 p.3)

(29) can read (29a) without any loss of meaning.

(29a) If there is a renewed worsening in the dispute, there is likely to be greater reluctance to respond to exchange rate pressure by raising interest rates.

The negative equivalent of the unmarked conditional form In the event of in the corpus is in the unlikely event of which may be found in example (24) quoted earlier.

The last marker to be discussed in this area is in the absence of. This is a rather difficult marker in that it appears to denote sometimes a conditional relation and sometimes a causal relation. In its conditional dimension, it is possible to argue that it acquires such a meaning as If there be Neg and in the causal Because there be Neg.

This difficulty may be illustrated in examples (30) and (31) below.

Conditional relation:

(30) (1a) Analysis of international capital flows thus seems to suggest (1b) that in the absence of any major political or financial upsets, which would tend to favour the US, (1d) further declines in the value of the dollar over the next year or so are a strong possibility. (NIER - 108/84, p.28)

which may be paraphrased as

(30a) Analysis of international capital flows thus seems to suggest that if there are not any major political or financial upsets, which would tend to favour the US, further declines in the value of the dollar over the next year or so are a strong possibility.

Causal relation:

- (31) (1a) In some countries, furthermore, capacity utilisation rates in manufacturing are rising quite rapidly (1b) despite only moderate output growth, (1c) suggesting (1d) that capacity is not expanding very quickly. (2a) Such factors may underlie recent downward revisions in the rate of growth of production potential from many countries, particularly in Europe, (2b) although evidence is not conclusive. (3a) In the absence of solid information (3b) a reasonable judgement may be (3c) that over the next year or two existing margins of spare capacity might permit 3 to 4 per cent growth in Europe, around 4 per cent growth in Japan (3d) without encountering widespread bottlenecks (3e) liable to aggravate domestic inflation. (OECD/84, p.8)

The clause in focus may be paraphrased by (31a).

- (31a) Because there is no solid information.

Nevertheless, we are inclined to include the marker in the absence of in this group of contingent conditional markers since instances of what we see as conditional in the absence of do seem slightly to outnumber those of the causal type.

5.2.1.3.2 Hidden Conditionals

Economic forecasters tend to maintain the hypotheticality of, and their detachment from, their predictions through the use of what is called here **hidden conditionals**. These amount to a set of identifiable lexical items and phrases which operate in the texts similarly to the explicit forms of the unmarked conditional discussed earlier. In other words, these lexical items can be paraphrased by the explicit

forms without distorting the meaning of the prediction. Although they have a paraphrasing power, the hidden conditionals differ from Winter's vocabulary 3 items, which additionally can have a predictive effect (Winter, 1977:1).

The lexical items attested in the corpus which express hypotheticality are **assume** and **any**. Let us examine each of these items in some detail.

5.2.1.3.2.1 The lexeme ASSUME

The lexical item **assume** is recognised as a true signal of hypotheticality. Tadros (op.cit) and Barbaresi (op.cit) for example include this item amongst those marking hypotheticality in the texts they have analysed, which were drawn from economics textbooks. However, their interpretation of hypotheticality is not entirely similar to that maintained in the present analysis. In the context of didactic text, Tadros sees hypotheticality as a strategy whereby the writer alludes to fictitious matters in order to elucidate and subsequently generalise his argument, and Barbaresi finds hypotheticality, expounded by the forms **if** and **assume**, as a means used by the writer to theorise.

In the present context, the hypotheticality of the argumentation is not so much "imaginative" for the sake of speculation but should rather be seen as a discursive exercise for the purpose of simplifying prediction

ease slightly, unless precluded by rising US interest rates.

On the assumption of is a true variant of **assuming**, since they are used interchangeably in the corpus. Compare example (33), with example (35) below, both of which emanate from the same source the OECD/84.

- (35) (20a) Assuming unchanged policies, (20b)
GDP growth may continue at about the same
rate in 1985. (Text 46)

It is difficult to advocate a different reason compelling the author to use **on the assumption of/that** and **assuming (that)** interchangeably, other than for achieving stylistic variation. However, unlike **assuming (that)** which is readily paraphraseable by the prototypical form of the unmarked conditional, the variant **on the assumption of/that** presents some limitations.

Example (33), can be paraphrased by (33a), without impeding the meaning of the prediction.

- (33a) If there is a continuation of present policies, GNP growth in 1985 is currently forecast at 4 per cent, with a further slowing of inflation and a reduction of the current account deficit to \$1 billion.

But the paraphrase test with **if** fails in such uses of the phrase **on the assumption of/that** as in example (36).

- (36) (1a) The exchange rate equation in our model predicts (1b) that, at current interest rates, there will be some continuing downward pressure on sterling.
(2a) The current balance has weakened (2b) and oil prices are projected to decline in real terms. (3a) Our forecast is

constructed (3b) on the assumption that
the authorities countenance a gradual
downward tendency in the effective rate.
(NIER, 109/84, p.9)

This limitation also extends to variant **assume** used as a finite verb in such a context as that provided in example (34) above.

It may be concluded that although **assume**, **assuming** (**that**), **on the assumption of/that** are true cognates or stylistic variants of the lexeme **assume**, which do in fact signal the ground upon which a given prediction is made, they are only paraphraseable by the **Hypothetical IF**, when the Basis proposition in which they are found and the prediction proposition they modulate, occur in the same sentence. Notice how the paraphrase test with **if** fails in cases as examples (34) and (36) in which the propositions containing the Basis and the prediction are found in different sentences.

5.2.1.3.2.2 The lexeme ANY

Any is traditionally known as an indexical marker of quantity and is usually treated in Grammar in relation to **some**, to which it is partly related (they can share the same meaning) and partly in conflict (they can convey opposite meanings) (Huddleston, 1984).

In the present analysis, however, although the primary meaning of **any** as a quantifier is not denied, it is found that **any** can also convey hypotheticality. Consider the following example.

- (37) (10a) Certainly, **any** premature reactivation of 'idled' capacity will dilute the benefits of a demand upturn (10b) and SDR-denominated prices are expected to rise by a fairly modest 12% this year. (Text 70)

In fact, it is quite possible to paraphrase **any** in example (37) with **if there is** and /or **assuming that**, as examples (37a) and (37aa) show.

- (37a) Certainly, if there is an easing of American short-term rates, this will dilute the benefits of a demand upturn and SDR-denominated prices are expected to rise by a fairly modest 12% this year.

or again

- (37aa) Certainly, assuming that there is an easing of American short-term rates, this will dilute the benefits of a decreased upturn and SDR-denominated prices are expected to rise by a fairly modest 12% this year.

Nevertheless, there are some syntactic constraints enabling **any** to bear a hypothetical meaning. It should be a modifier of an NP occurring in initial position.

5.2.2. Disclaiming Conditional Predictions

5.2.2.1 Use

The writer may want to use a conditional prediction to discard a given scenario as a possible future trend of economic events. Indeed, in so doing the writer can be said to disclaim the scenario as a likely course of events or trends.

It does seem that in their reasoning, writers are quite confident that the materialisation of such a

prediction would be exclusively dependent upon the prior fulfilment of another single event deemed unlikely to happen at the moment of writing.

In other words, disclaiming conditional predictions seem to be used in the corpus to describe a future scenario of events which the writer does not think would take place for the simple reason that the fulfilment of the essential condition that must occur before the prediction can be realised is not deemed likely at the moment of writing.

Hence, in an excerpt such as (38) the conditional prediction found in propositions (9a) to (9d) reflects the course the writer thinks events would not take.

(38) (9a) But here, (9b) just as in the short-term market, (9a) for exchange rate reasons a decline in yields is only to be expected (9c) if US interest rates fall (9d) or the D.Mark overcomes its present weakness. (10) Until then German long-term rates are likely to fluctuate around present levels. (Text 18)

The excerpt imparts two main ideas. First the writer shows in the first sentence why yields (a type of long-term interest rates) cannot be expected to decline. Having given the reasons, which are high US interest rates and weak D.Mark, the writer goes on to posit his final assessment on the likely future trend of German long-term interest rates. The predicted trend is that of stability. So, the second sentence must be seen as the writer's central prediction or his verdict on the future scenario of events or trends.

We have maintained that the condition in such predictions has the meaning of a precondition for the fulfilment of an event and that the materialisation of the precondition is in the writer's opinion unlikely to take place. In this respect, example (38) may be paraphrased by a discourse of this type:

- (38a) But here, just as in the short-term market, for exchange rate reasons a decline in yields is not to be expected. These exchange rate reasons are that the US interest rates are not down and that the D.Mark is weak at present. A precondition for a decline in yields is a fall in US interest rates or that the D.Mark overcomes its present weakness in the exchange rate market. For the moment however, there are no signs of a reversal of the present situation in the exchange market. Until there is such a reversal, German long rates are likely to fluctuate around present levels.

The original extract which is the natural text found in the corpus may be said to be a condensed version of the paraphrase, which is a constructed text. The difference between the two may be attributed to the fact that published texts generally undergo a lot of editing. Bell (op.cit:78) for example, argues that in the context of news editing, individual words, phrases and sentences can be deleted and/or altered for the purposes of condensation or of conforming to house style.

This process is not alien to the present corpus. In fact Cathy George recognises her role as editor of Abecor/Barclays reports when she says:

"I turn those (i.e the economic reports written by other Abecor member banks) into as much a general style. So I don't know whether you detect on reading them that some of them are written by other banks. But on the whole we try and make them look as if it's an Abecor product." (My emphasis)

(Vol.II, p.134)

For the sake of argument we can illustrate this functional use of conditional prediction in the real world with a quotation from Mrs Margaret Thatcher, the British Prime Minister, in a House of Commons debate on economic sanctions against the Republic of South Africa, held in June 1986.

"Mr Speaker, sanctions will only work if the whole world, I repeat the whole world agrees to apply them."

This statement is another way of saying that economic sanctions against the political regime of this country will not work and indeed such a prediction is a disclaimer of any need for the British Government to apply sanctions, given the predicted non-compliance of the whole world in enforcing them.

5.2.2.2 Context of occurrence

Disclaiming conditional predictions seem to occur in contexts where the writer is counterbalancing arguments one against another to support his own point of view. In this case, the conditional prediction is being used to denote an argument **against** the writer's position. Being so, it is likely to be evaluated by another counter-argument showing why the writer thinks

his position prevails.

Naturally enough, such contrastive argumentation seems to be found either in the BASIS or in the RISK parts of the schema. Example (38), reiterated here for convenience, illustrates the occurrence of the conditional prediction in the BASIS environment.

(38aa)

Move	Text
Basis	(9a) But here, (9b) just as in the short-term market, (9a) for exchange rate reasons a decline in yields is only to be expected (9c) if US interest rates fall (9c) or the D.Mark overcomes its present weakness.
PFT	(10) Until then, German long-term rates are likely to fluctuate around present levels.

(Text 18)

Example (39), on the other hand, illustrates the occurrence of the disclaiming conditional prediction in the RISK part of the text.

(39)

Move	Text
Basis	(1a) However, with any rise in interest rates probably constrained by fears about the impact on LDC debt difficulties and on the stability of US financial institutions,
PFT	(1b) our central forecast reflects a view (1c) that the currency will weaken gradually during 1985.
Risk	(2) Nevertheless, the emphasis of the forecast should be on the gradual nature of the decline. (3a) A sharper fall is likely to materialise (3b) only if economic growth slows down (3c) or if the budget deficit is cut much more sharply than expected. (4) At the moment, the risks are biased to higher economic growth and a higher Budget deficit than the central

! (7a) In contrast to the capital markets, !
 ! (7b) money market interest rates have more !
 ! or less stabilised around 6% this year. (8a) !
 ! The major factor has been the strength of !
 ! the dollar, (8b) which has prevented the !
 ! Dutch monetary authorities from bringing !
 ! down short-term interest rates to a level in !
 ! line with the domestic economic situation. !
 ! (9a) Therefore, a fall in Dutch money rates !
 ! can be expected (9b) only if US rates fall !
 ! further, (9c) or the dollar starts its long !
 ! awaited downtrend. !

(Text 35)

In example (40), the conditional prediction is seen as showing why the writer still thinks that his posited prediction the reduction in Dutch long-term rates is not expected to continue in the months ahead stands. The thread of discourse found between the central and the conditional prediction is an argument in support of the central forecast.

It does seem, therefore, that the main point as far as the contextual distribution of the Disclaiming conditional prediction is concerned is that from the writer's standpoint, it dispenses with an alternative prediction by positing an unlikely but essential condition for its fulfilment.

5.2.2.3 Marker of the conditional clause

Conditionals used by the writer to disclaim a prediction as an alternative scenario of events are marked by what may be termed the **Absolute Conditional**. The argument here is that the writer is inclined to make use of the Absolute Conditional when he feels that there

is a clearly identified sole factor which is the sine qua non prerequisite for the materialisation of a given prediction. We have also contended that this factor is, in the writer's opinion, unlikely to be met. Hence in the conditional prediction:

(9a) a fall in Dutch money rates can be expected (9b) **only if** US interest rates fall further, (9c) or the dollar starts its long awaited downtrend

of example (40), the writer makes the fulfilment of the prediction that Dutch money rates could fall, exclusively dependent upon the prior occurrence of either a further fall in US rates or a decline of the dollar exchange rate. The writer does not think that there is any other factor that can trigger a fall in Dutch money rates.

The Absolute Conditional is thus a necessary condition denoting an exclusive precondition for the realisation of a given prediction. As further exemplification, it can be said that in a conditional prediction such as (41), it is evident that a decline in German yields is, in the forecaster's view, dependent on a prior fall in American interest rates or a strengthening of the D. Mark's position in the exchange rate market. Without these conditions being met, a fall in German yields is not possible because there is no other factor likely to trigger the fall.

(41) (10a) However, a noticeable decline in yields for exchange reasons is **only** to be expected (10b) **if** US interest rates decrease (10c) or the D.Mark overcomes its

present weakness. (Text 26)

Clearly, the meaning of such a prediction would not be conveyed by (41a) below, because a significant element of the original sentence has been omitted.

(41a) However, a noticeable decline in yields for exchange rate reasons is to be expected if US interest rates decrease or the D.Mark overcomes its present weakness.

Although it can be said that the writer in (41) as in (41a) leaves the condition open in terms of its fulfilment - i.e by stating (41) or (41a), the writer can be said to imply that American interest rates may or may not decrease and /or the D.Mark may or may not strengthen - it may be said however that by stating (41a) the writer does not set up a watertight or necessary link between the condition and the prediction. The condition in this case is not seen to be sine qua non for the realisation of the prediction but probably aleatory as in the case of any other unmarked conditional.

The conditional in example (41) has therefore the meaning of 'a precondition for ' and can be paraphrased by (41aa) without any loss of meaning.

(41aa) A precondition for a decline in yields is, for exchange rate reasons, a decrease in US interest rates or for the D.Mark to overcome its present weakness.

5.2.2.3.1 Forms of the Absolute Conditional

The Absolute Conditional, as it is called here, is easily identifiable since it has explicit forms which

more or less mean **only if (there is)** or a **precondition for**. The ones attested in the corpus are the following along with examples of sentences in which they are found.

a. **Only if**: as in examples (38) and (39) above or as in (42) below.

- (42) (1) Fiscal policy is unlikely to do much to moderate growth. (2a) Various conflicting proposals (2b) currently before Congress for tax and spending cuts (2a) would at best reduce the budget deficit from this year's \$180 billion odd to some \$150 billion in fiscal year beginning in October, (2c) and then **only if** the economy were to grow between the fourth calendar quarters of 1984 and 1985 by 4 per cent, (2d) which is written into the official forecasts (2e) but is not generally expected to materialise.
(NIER-108/84, p.29)

Clearly in this example, the author's adjacent evaluation found in propositions (2d) and (2e) shows that the Absolute Conditional is unlikely to be fulfilled. Example (42), thus provides further evidence of the use of this category of conditional prediction.

b. **Only... if**: as in example (38) quoted earlier or as in example (43) below.

- (43) (1a) The risk of the latter effectively constrains any further tightening in policy to a further rise of 0.5% - 1% in the overall structure of interest rates (1b) and this is **only** likely to be implemented **if** banking confidence were to improve significantly. (IFS, 30/5/84 p.2)

c. **Only in the case of**: as in example (44)

- (44) (3a) Nevertheless a more restrictive Bundesbank policy, (3b) to support the German currency (3a) would endanger the

economic recovery (3c) and is therefore likely (3d) only in the case of a further significant rise in the dollar. (Text 26)

d. **Only in the unlikely event of:** as in example (45)

- (45) (31a) **Only in the unlikely event of** a concerted action by China, Bolivia and South Africa to control supplies to the market (31b) could stability be quickly restored. (Text 57)

All these markers are seen here to be performing a similar role and the differences between them are stylistic. It is possible to use them interchangeably without actually distorting the meaning of the prediction. Example (44) for instance can read (44a) without any loss of sense.

- (44a) Nevertheless a more restrictive Bundesbank policy to support the German currency would endanger the economic recovery and is therefore likely **only if** there is a further significant rise in the dollar.

Moreover, not only that such a qualified marker as **only in the unlikely event of** should be seen as a whole unit but also the modifier **unlikely** provides further evidence for our claim that conditional predictions such markers signpost have a connotation of unlikelihood. In fact, example (45) may be paraphrased by example (45a) and still retain its meaning.

- (45a) Stability could be quickly restored only if there is a concerted action by China, Bolivia and South Africa to control supplies to the market. Such an action however is unlikely to take place.

In this paraphrased example, the second sentence provides the writer's own evaluation of the chances of the condition being fulfilled.

The conditional form **only...if** is a variant of **only if** which allows some linguistic intake between the two elements of the marker, viz **only** and **if**. The linguistic stretch found in between is generally a non - finite Verb Group like to be expected in example (38) and likely to be implemented in example (43).

In addition to these explicit forms of the absolute conditional, there is the phrase **a precondition for** which is held here to be their implicit equivalent. An example in which the phrase occurs is (46).

- (46) (9a) A precondition for a decline would be an easing of US interest rates (9b) as German rates in an international comparison are relatively low. (Text 4)

A precondition for operates convincingly as an indexical marker of the Absolute Conditional. If we set out the context in which the prediction found in example (46) occurs, the meaning of the marker will come out conspicuously.

(46a)

! Move	! Text	!
! -----	! -----	!
! DPT	! (7a) Capital market yields, (7b) after	!
!	! having fallen to 7.4% in March and April,	!
!	! (7a) firmed again slightly to 7.8% at	!
!	! present, !-----	!
! -----	! -----	!
! REASON	! (7c) mainly because the expected	!
!	! decrease in US interest rates failed to	!
!	! occur. !-----	!
! -----	! -----	!
!	! (8a) Although government efforts	!
!	! to check the high budget deficits exert	!
! BASIS	! a positive influence, (8b) the general	!
!	! market climate and private capital demand	!
!	! remains hesitant (8c) due to the slow	!
!	! economic recovery, (8d) suggesting little	!
!	! chance for renewed downward trend in long-	!
!	! term rates for the time being. (9a) A	!

```

!           ! precondition for a decline would be an !
!           ! easing of US interest rates (9b) as German !
!           ! rates in an international comparison are !
!           ! already relatively low. !-----!
!-----!-----! (10) Until then !
!           ! German long - term rates are likely to !
! PFT       ! fluctuate around their present levels. !
!-----!-----!

```

(Text 4)

First, it is evident that the sentence containing the phrase a precondition for can be paraphrased by explicit markers of the Absolute Conditional without any loss of meaning. We can illustrate this in (46aa).

(46aa) a) **Only if**

German long-term rates would decline only if US interest rates ease as German rates in an international comparison are already relatively low.

b) **Only...if**

German long-term rates would only decline if US interest rates ease as German rates in an international comparison are relatively low.

c) **Only in the case of**

German long-term rates would decline only in the case of an easing of US interest rates as German rates are already low in an international comparison.

d) **Only in the unlikely event of**

Only in the unlikely event of an easing of US interest rates would German long-term rates decline as they are already relatively low in an international comparison.

Second, the rhetorical distribution of the sentence marked by **A precondition for** is that of a typical Disclaiming Conditional Prediction as discussed earlier. The sentence bears an argument against the

writer's position in the BASIS and occurring prior to his central prediction. As a matter of fact, in (46a) the writer does not see any signs of a renewed downward trend in German long-term interest rates at the moment of writing. Such an event, the writer argues, would happen only if US interest rates ease. Yet, at the time of writing, there is no indication that American rates are easing or are likely to ease in the near future. Until there is such a change, German long-term rates are likely to fluctuate around their present levels, which is the central prediction made by the writer.

5.2.3 Reinforcing Conditional Predictions

5.2.3.1 Use

At times, the writer may use a conditional prediction if s/he envisages a factor of economic interest that is likely to reinforce the chances of fulfilment of a given prediction. This seems clearly to be the case with the following conditional prediction.

- (47) (9a) From their present level of around 11%, some further modest easing in long rates is possible (9b) especially if the election result leads to a further strengthening of the exchange rate.

(Text:7)

In example (47), the occurrence of the politico-financial event of a strengthening of the pound sterling exchange rate resulting from the June 1983 Government election can be said to enhance the chances of fulfilment of the prediction that UK long-term interest

rates may ease.

Therefore, in putting forward such a conditional prediction, the writer commits himself to the link established between the fulfilment of the condition and that of the prediction. Naturally enough, it does seem that this category of conditional predictions tends to be a reflection of the writer's own thinking of the likely future trend of events.

In contrast to the Disclaiming Conditional Prediction, the use of the Reinforcing Conditional Prediction appears to be one of the strategies utilised by a writer to propose a prediction that reflects his own viewpoint about the future course of events and is one he would wish the reader to remember as a possible future scenario.

Let us consider the following small text, broken into propositions for ease of reference, to illustrate this interpretation.

- (48) CANADIAN DOLLAR
(1a) the recent slight weakening against the US dollar is unlikely to unwind before the end of the first quarter of 1984, (1b) given the seasonal deterioration in the balance of payments (1c) expected over the next few months. (2a) Thereafter there is scope for considerable appreciation of the currency, (2b) especially if sentiment turns away from the US dollar. (3) However, our central forecast is for only a mild appreciation against the US dollar. (4a) the current account surplus is forecast to remain small (4b) and the Bank of Canada is expected to prefer to see interest rates lower (4c) rather than the currency appreciating strongly (4d) in order to avoid any further loss of

international competitiveness. (IFS,
6/12/83, p.3)

On the surface, example (48) encompasses a number of predictions found in propositions (1a), (1c), (2a), (3), (4a) and (4b) but which do not all have the same importance. Our interest at this point is the conditional prediction found in propositions (2a) and (2b) which is used as an argument in the BASIS in favour of the writer's position.

As a matter of fact, the writer's basis for predicting the future exchange rate of the Canadian dollar remains the strength of the US dollar over the forecasting period. From the excerpt, it can be said that, at the moment of writing, the American dollar was slightly weak and that the writer does not think that the trend would change before the end of the first quarter of 1984 because of the prospective seasonal deterioration in the US balance of payments expected during the same time. Later on, even though it is possible for the Canadian currency to appreciate strongly against the American dollar especially when and if sentiments turn away from the US dollar (i.e if the American dollar weakens), the writer's central forecast is for a mild rather than strong appreciation. The reason given by the writer for this view is twofold. Firstly that the Canadian current account surplus has been predicted to remain small during that time and secondly, the writer believes that the Central Bank of

Canada will do everything to keep interest rates low to safeguard international competitiveness.

It can thus be argued that the Reinforcing conditional prediction found in propositions (2a) and (2b) is being used in this example, as a minor prediction in support of the central, more important one which is expounded in proposition (3). Indeed, what seems to matter with this type of conditional prediction is that it ostensibly displays the writer's own anticipation of its fulfilment.

At times, the Reinforcing Conditional Prediction encompasses three complementary propositions:

- i.- a prediction,
- ii.- a condition for the fulfilment of the prediction
- and iii.- a prediction that the condition will be met.

Hence, in an example such as (49), the prediction is expounded by proposition (1a) and the writer's own prediction of the fulfilment of the condition is expounded in proposition (1b).

- (49) (1a) If, (1b) as we anticipate, (1a) the strike is not extended, (1c) prices will rise only slowly in the final quarter.
(wco /83 p.12)

Taken altogether, the three propositions express the writer's confidence with respect to the materialisation of the prediction and thereby expose the writer's own commitment to the fulfilment of the prediction. In this analysis, it is taken for granted that the writer's view is subordinated to and reflects

that of the institution he represents.

5.2.3.2 Context of Occurrence

The discussion of the use of the Reinforcing Conditional prediction has to some extent exposed the rhetorical environment in which it is likely to be found. As a supporting prediction, it is likely to occur in the BASIS and naturally in the PFT move area as a major prediction. There is, however, an isolated case where the Reinforcing conditional prediction is used in the RISK part of the text.

Example (50) illustrates a case where a Reinforcing conditional prediction is at the same time the central one. Example (51) on the other hand illustrates a case in which the Reinforcing conditional forecast is rather a minor prediction occurring in the BASIS, as an argument in favour of the writer's view of the future course of events.

(50)

! Move	! Text	!
! DPT	! (7a) Since January 1984 the Dutch long-term	!
!	! rates (7b) -the yield on the three most	!
!	! recent long-term government bonds- (7a) has	!
!	! moved between 8.4% and 8.6%.!-----!	!
! REASON	! (3a) Because	!
!	! of the strength of the guilder and the low	!
!	! inflation rate (8b) a decline in yields has	!
!	! seemed possible, (8c) but international	!
!	! factors have prevented this.!-----!	!
! PFT	! (9a) <u>In the</u>	!
!	! <u>near future a slight decrease looks</u>	!
!	! <u>probable (9b) certainly if long-term rates</u>	!
!	! <u>in the US and Germany fall.</u> !-----!	!
!	! (10a) This	!
!	! expectation is not only based on the	!

! arguments mentioned above (10b) but also on !
! BASIS ! the narrowing of the budget deficit of the !
! ! Dutch government. (11) The recent economic !
! ! upturn has resulted in an adjustment of the !
! ! budget figures this year. (12a) According !
! ! to the most recent forecasts (12b) the !
! ! deficit (12c) as a percentage of net !
! ! national income (12b) will decrease from !
! ! 11.5% in 1983 to 10.7% in 1984. (13) !
! ! Moreover, the State has already financed !
! ! about 65% of its financing needs for this !
! ! year during the first five months of 1984. !
! ! (14a) A decline in borrowing by the State, !
! ! together with weak private sector by the !
! ! credit demand, is an additional factor !
! ! (14b) which creates room for a decrease of !
! ! long-term rates in the near future. !
! -----! -----!

(Text 28)

Example (50) is an excerpt about the trend of Dutch long-term interest rates. Having described what the trend has been up to the moment of writing (slight increase) and given the reason for it (international factors), the writer goes on to propose what he thinks the trend will be in the near future (slight decrease), mostly if the condition materialises (fall in US and German long-term rates).

The BASIS for this conditional prediction which is partly signalled by the lexeme based - is particularly interesting in that it also includes minor predictions supporting the major one. The attributed prediction expounded in propositions (12a) to (12c) especially along with propositions (11) and (13) provide evidence that the budget deficit is narrowing. The prediction in proposition (14b) creates room for a decrease of long-term rates in the near future is a reiteration of the central prediction. As a matter of fact, the unqualified

word decrease is not incongruent with slight decrease. That is why we speak here of a reiteration rather than a correction. The latter would have also been the case if the writer had used an expression such as significant decrease.

(51)

! Move	! Text	!
! REASON	! (14a) The rapid improvement in the French ! ! external position has been based on the ! ! sharp fall in domestic demand (14b) ! ! combined with a continued improvement in ! ! France's competitive position!-----!	!
! BASIS	! -----! (14c) and ! ! these factors are expected to remain ! ! favourable over the next twelve months. ! ! (15a) Domestic demand growth is expected to ! ! be close to zero in 1984, (15b) following ! ! the announcement (15c) that the tight ! ! fiscal stance will be maintained in 1984, ! ! (15d) and <u>France's level of competitiveness</u> ! ! <u>is unlikely to deteriorate significantly</u> ! ! <u>(15e) especially if there were to be a</u> ! ! <u>further downward adjustment of the franc's</u> ! ! <u>central parity against the D.Mark.</u> (16a) ! ! As a result French current account will ! ! continue to improve (16b) and could show a ! ! small surplus next year. ! ! -----!	!

(Text 82)

Example (51) is an extract from a slightly longer text entitled Current Accounts. The text as a whole is about developments of the current accounts of four major countries: USA, Japan, West Germany and France. The text starts with an overview of the current situation of current accounts in the four countries. Then a paragraph is devoted to developments in the current account of each individual country supported by a statistical table which is referred to occasionally in the main

text.

The example is the fourth "physical paragraph" (Trimble, op.cit:15) in the text, devoted to France's current account position and conceptually follows a sentence in the first paragraph which reads "In particular, the US deficit has widened, the French deficit narrowed and the Japanese surplus expanded at faster than expected rates" (my emphasis). The statement the French current account deficit has narrowed, which is in fact the full meaning of the underlined part of the sentence quoted above, is seen here as the conceptual DPT of excerpt (51).

Then the writer gives the reasons for the improvement in France's financial position, notably the position of the Domestic Demand and that of International Competitiveness. The same reasons -called factors by the writer- are deemed to be influencing the underlying position of France's current account (BASIS).

This assertion is expanded by spelling out expectations of the two main factors, viz -Domestic demand and International Competitiveness. It is by providing evidence of expectation of one of the factors, namely International competitiveness, that the writer makes use of a reinforcing conditional prediction. Only after sufficient argumentation has been given does the writer go on to give his final assessment of the likely future trend of France's current account. In other

words, the reinforcing conditional prediction is being used here as an argument providing evidence for the basis of the central prediction.

The isolated case where this type of conditional prediction is used in the RISK part of the text is example (52).

- (52) (1) Several uncertainties attach to these projections: (2) i) Risks lie on both sides of the projected behaviour of NODC import volumes. (3a) The debt situation remains precarious (3b) and could dictate lower increases in import volumes, (3c) particularly should interest rates increase further. (OECD/July 84, p.65)

This example however is unrepresentative since the general tendency in the corpus is for the use of this category of conditional prediction either as evidence in the Basis or as a Central prediction.

5.2.3.3 Marker of the Conditional Clause

The conditional clause of Reinforcing Conditional predictions is distinguished by what shall be termed here as the **Reinforcing Conditional**. This is an open-type condition whose fulfilment makes that of the prediction more likely, though the condition is not necessary for the prediction to come true. Thus although the writer is uncertain whether the condition will or will not actually materialise, he does argue that the materialisation of the condition will definitely trigger that of the prediction.

Let us, as an illustration, consider the conditional

prediction in example (53).

- (53) (1a) Real incomes are unlikely to show more than a marginal rise (1b) but the savings ratio could be lower, (1c) especially if interest rates fall further. (NIER-108/84, Italy, p.33)

The writer of example (53) leaves the prediction of a low savings ratio open and does not completely rule out the opposite trends - notably stability or a rise. But should the condition of a further fall in interest rates materialise, this would from the writer's point of view certainly cause a fall in the savings ratio. That is why the type of modulation this Conditional brings to the Prediction is one of Reinforcement.

(1*)
The meaning of the forecast would be ostensibly distorted if we removed the reinforcement marker **especially**, as in the constructed example (53a).

- (53a) Real incomes are unlikely to show more than a marginal rise but the savings ratio could be lower if interest rates fall further.

The only interpretation examples (53) and (53a) seem to have in common is that of contingency of both the prediction and the condition. They differ greatly in that, in proposing (53a), the writer can be said to allow for the possibility that the fulfilment of the condition may not cause that of the prediction. In example (53) however, the writer's position is that the materialisation of the condition would certainly cause that of the prediction.

5.2.3.3.1 Forms of the Reinforcing Conditional

The relation denoted by the Reinforcing Conditional is expounded by the following forms which more or less mean especially if, allowing for slight differences in their degree of certainty.

1. **Especially if**, as in examples (47), (48), (51) or (53)
2. **Certainly if**, as in example (50)
3. **Particularly if**, as example (55)
4. **Particularly should**, as in example (52)
5. **At least as long as**, as in example (56) below

Each of these markers should be seen as a complex unit rather than separate elements. They all lose their contextual meaning if the elements are considered separately or if parts of the elements are dropped. Also, the markers are seen here as stylistic variants and hence can be used interchangeably without any impingement on the meaning of the prediction. For example, (54) may read as (54a) without any loss of sense.

(54) (1a) Renewed downward pressure on spot oil prices cannot be ruled out over the second quarter (1b) when demand is seasonally weak (1c) and especially if there is no clear indication that destocking of oil has come to an end. (IFS, 4/5/83 p.2)

(54a) a) Renewed downward pressure on spot oil prices cannot be ruled out over the second quarter when demand is seasonally weak and certainly if there is no clear indication that destocking of oil has come to an end.

b) Renewed downward pressure on spot oil prices cannot be ruled out particularly if there is no clear indication that destocking of oil has come to an end.

c) Renewed downward pressure on spot oil prices cannot be ruled out over the second quarter when demand is seasonally weak and particularly should there be no clear indication that destocking of oil has come to an end.

d) Renewed downward pressure on spot oil prices cannot be ruled out over the second quarter when demand is seasonally weak and at least as long as there is no clear indication that destocking of oil has come to an end.

Paraphrased examples (54aa) and (54ab) are straightforward and do not call for any further comments. (54ac) had to be doctored slightly, due to the nature of the marker particularly should which is here quasi-subjunctive in that should is part of verb element found in the sentence. Paraphrased example (54ad) on the other hand may be debatable. Even if the marker at least as long as is closer to something like at least if (which is not attested in the corpus) rather than especially if, which is attested, the meaning it acquires here still maintains the tenor of the prediction.

Especially if and particularly if are very closely related forms of the Reinforcing Conditional, just as especially and particularly are near-synonyms in Everyday English.

The clause marked by the Reinforcing Conditional can be positive or negative as the following central conditional predictions illustrate.

- (55) (1a) Because of this, (1b) and **particularly if** the monetary aggregates continue their recent deceleration, (1c) interest rates are expected to fall further over the next few months - with the next cut in discount rate possible before the end of May. (IFS, 4/5/83 p.4)

versus

- (56) (8a) It is therefore possible to forecast a further slight reduction in short-term interest rates, (8b) **at least as long as** the DMark does not strengthen against the dollar and the other EMS currencies. (Text 31)

In which case examples (55) and (56) show what the writer thinks would certainly happen to interest rates if the positive and negative conditions respectively are fulfilled. The difference being made between positive and negative is merely grammatical. To paraphrase, (55) means "what will certainly happen to interest rates if the condition does X" while (56) refers to "what will certainly happen to interest rates if the condition does not do X". Both imply that the condition can be positively or negatively expressed.

In addition to the forms discussed above, the Reinforcing Conditional has a further surface realisation with a case of embedding in the conditional clause. The embedded clause, which is realised as a set of identifiable stereotypic expressions, is in fact a prediction in itself and denotes the position the writer had in mind while proposing a conditional prediction. This is the type of realisation exemplified by (49) and which can further be illustrated with example (57).

- (57) (1a) If, (1b) as we expect, (1a) a sustained weakening of the dollar does not begin until early 1984 (1c) the fall in Swiss rates is also likely to be delayed until then. (IFS, 12/10/83 p.4)

In this example, the embedded clause as we expect subsumes a central prediction which is something like We expect a sustained weakening of the dollar not to begin until early 1984, the impact of which is being measured on the fall in Swiss interest rates. In other words, example (57) may be paraphrased by the two distinct sentences of (57a), below. (57aa) contains the central prediction and (57ab) the Conditional prediction to which it is related.

- (57a) (1a) We expect (1b) that a sustained weakening of the dollar will not begin until early 1984. (2a) If this view is borne out, (2b) the fall in Swiss rates is also likely to be delayed until then.

On the other hand, one may equally argue that the embedded central prediction in (57) represents the alternative option of reinforcing a prediction that commits the writer to the truth-value of the propositional content of the conditional clause. By stating (57), the writer rates the chances of fulfilment of the conditional more highly. This feature of Author-commitment to the force of a conditional prediction is expounded in the corpus by the following expressions.

as we anticipate
as (we) expect (ed)
as seems likely (at this stage)
as seems to be more the case

5.2.4 Revoking Conditional Predictions

5.2.4.1 Use

This type of Conditional prediction appears to be used in the corpus to denote predictions that the writer presents as an alternative future scenario of events, in case a previously proposed prediction turns out to be fulfilled contrary-to-expectation, or contrary-to-assumptions. In other words, the writer may want to use a conditional prediction to introduce a prediction that contradicts a foregoing central prediction and in so doing **revokes** his own assessment of the likely course of future events.

We can illustrate this type of conditional forecasting with example (58).

- (58) (5a) Because of this, (5b) the Belgian Franc may see its position strengthen somewhat against the D.Mark, (5c) thus allowing some reduction in the excessively high 5-6 point interest rate differential. (6a) However, there would be little scope for a decline in short-term interest rates (6b) if eurodollar rates were to rise further. (Text 24)

In example (58) the writer introduces two opposing predictions, expounded in propositions (5b) and (6a) respectively. Propositions (5a) to (5c) reflect the writer's own view of the future which is contradicted by propositions (6a) and (6b).

In other words, the conditional prediction found in propositions (6a) and (6b) seems to answer the following question: "What might be otherwise expected?"

or again, "What can be expected to happen if things do not turn out to be the way the writer thinks they will?".

Although not being the writer's proposed forecast, the Revoking conditional prediction, which is held to be the writer's alternative prediction, can actually materialise in the real world. Let us consider the following as an example.

- (59) (1a) Our forecast, (1b) which is based on the assumption that the strike ends with the current quarter, (1a) makes allowance only for the direct effect of the strike on coal production (1d) and, (1e) in so far as we can estimate then, (1d) for secondary effects on demand. (2a) It is assumed (2b) that the output of industries (2c) using coal directly (2d) and using electricity (2b) will not be constrained by a shortage of energy. (3a) This assumption would be untenable (3b) if the stoppage were to go on much longer (3c) than we have assumed. (NIER/109, p.8)

The prediction the writer puts forward in example (59) and which is set against the background of the 1984 British Coal Miners' strike, is that electricity and coal-using industries will not be affected by a shortage of energy. The writer goes on to argue that his forecast would not hold if the strike went on much longer than assumed. The revoke that follows in propositions (3a) to (3c) is neither imaginary nor unreal. Indeed this strike went on for another two quarters (up to March 1985), well beyond the period assumed in the forecasts. ("Current quarter from the

date of publication, which was August 1984, referred to the quarter spanning from July to September 1984.)

The Revoking Conditional Forecast must therefore be seen, should it be realised, as invalidating the writer's central forecast. It contradicts the whole of the propositional content of the foregoing prediction which reflects the writer's own position.

5.2.4.2 Context of Occurrence

The use of the Revoking Conditional prediction exposes the fact that this type of prediction sets up a binary relation of **thesis**, which is the position adopted by the writer with regard to the future course of events against **antithesis**, the alternative picture the writer presents and which he may not espouse or would not wish to project.

Having said this, it does appear that this type of conditional forecast is inevitably subsequent to a central one in any given text. Its contextual position vis-a- vis the prediction it contradicts seems to be either adjacent, i.e coming immediately after the foregoing central prediction as in example (60), or deferred, i.e coming somewhere later in the text as in example (61).

- (60) (1a) On the other hand, their inflation rates would tend to be lower; (1b) and if their recoveries had consolidated by then, (1c) domestic components of demand could take over the running. (2a) If, however, the dollar were to fall too far too fast, (2b) it could imply sharply higher US

inflation, (2c) leading to a tightening of US monetary conditions, and perhaps even of monetary policy. (OECD/84, p.10)

Example (60) gives us a pair of arguments which propose low inflation rates on the one hand, and sharply higher US inflation on the other hand subject to a fast and deep fall in the value of the American dollar.

Example (61) on the other hand, exemplifies a case where the contradicting conditional prediction is deferred or physically distant from the central prediction.

(61) I (1a) Another factor (1b) working against strong (internally induced) pressures for EMS realignment in the near future (1a) is the relatively high level of inflation - adjusted short-term interest rates in France and Italy - (1c) which may be interpreted by the market (1d) as evidence of the resolve of the authorities to defend existing parities. (2a) As has occasionally happened in the past, (2b) this could result in capital flows within the EMS from low inflation, low interest rate countries to countries with high inflation and high nominal interest rates. (3a) An absence of EMS strains and expectations of parity changes would benefit the Belgian franc, (3b) which has been consistently as the floor of the exchange rate band (3c) occasionally requiring official support, (3d) even though Belgian franc cost - price competitiveness would seem broadly in line with its parities (3e) and the current account is expected to improve in 1984 and swing into surplus in 1985.

II (4a) Although the "fundamentals" outlined above appear to be consistent with intra-EMS exchange rate stability, (4b) any relative policy relaxation in higher-inflation countries could affect expectations (4c) and give rise to strong pressures. (5a) Furthermore, if currency-preference shifts since 1980 in favour of the dollar were to reverse themselves to any significant extent, (5b) it is

generally held (5c) that such a reversal might well be unevenly felt across other currencies, (5d) with the Deutschmark, the Swiss Franc and the yen benefiting most.
(OECD/84, p.72)

Example (61) has two main contrasting parts: I and II. Propositions (1a) to (1c) are serving as BASIS for the prediction found in proposition (2b) and has been incorporated only to show conspicuously the referent of this found in proposition (2b). Propositions (2b) and (3a) both contain predictions proposed by the writer. These are in turn contradicted by revoking conditional predictions expounded in propositions (4b) to (5b). The conditional prediction in (4b) and (4c) opposes the trend of stability within EMS countries. Notice for instance the expression intra-EMS which not only is a paraphrase of the expression 'within EMS countries' but also maintains the topic.

Propositions (5a) and (5b) which bear the revoking conditional prediction opposes the author's prediction expounded in proposition (3a), by implying that the Belgian franc would not benefit should the conditional materialise. Propositions (3a) and propositions (5a) and (5b) on the other hand are indeed contrasting pairs, though not occurring in adjoining positions.

In the overall schema, not only does the revoking conditional prediction seem to occur in the RISK move but it tends to be a characteristic marker of it. Naturally enough, by virtue of the nature of the propositional content they carry, it looks right for

such conditional predictions to be found in this part of the overall structure.

What is especially interesting is that the contradicting conditional prediction as well as the move it typifies always follows and does not precede the central prediction. This canonical ordering can be seen in example (62) which is only an extract of a much larger original text.

(62)

! Move	! Text	!
! -----	! -----	! -----
! BASIS	! (8a) The magnitudes will no doubt be subject	!
!	! to revision (8b) as more detailed trade	!
!	! figures become available. (9a) However, the	!
!	! figures so far probably provide a reasonably	!
!	! good guide to the general pattern of changes	!
!	! in trading patterns this year - (9b) namely	!
!	! that Europe is failing to benefit fully from	!
!	! the increasing US deficit and (9c) that the	!
!	! bulk of the benefit is accruing to Japan and	!
!	! developing countries.!	! -----
! -----	! (10a) The net result	!
!	! is a forecast (10b) that the OECD's trade	!
! PFT	! balance with the rest of the world will	!
!	! deteriorate by about US\$ 35 billion this	!
!	! year. (11a) This is slightly larger than the	!
!	! improvement of about US \$25 - US \$30 billion	!
!	! (11b) forecast for the non-OECD area, (11c)	!
!	! (11c) based on expectations for the major	!
!	! developing countries, (11d) and implies a	!
!	! slight widening in the world trade balance	!
!	! residual. (12a) Because of difficulties in	!
!	! recording payments flows, (12b) variations	!
!	! in the residual are by no means uncommon	!
!	! (12c) -on OECD figures, the trade balance	!
!	! residual has fluctuated between US\$10	!
!	! billion and US\$37 billion during the last	!
!	! five years.!	! -----
! -----	! (13a) However, if the residual	!
!	! were to be kept to last year 's level, (13b)	!
! RISK	! the main risk to our forecasts is probably	!
!	! (13c) that European balances would improve	!
!	! more than we have forecast.	!
! -----	! -----	! -----

(Text 87)

This small text presents a clear case of embedding in which the central prediction about the likely future course of a given economic parameter (OECD trade balance with the rest of the world) is serving as Basis for the prediction about the future course of another one (world trade balance residual). The conditional prediction found in the Risk part of the text is seen to contrast with the prediction of a slight widening, i.e. improvement in the world trade balance residual.

Interestingly enough, RISK is marked here by the contrasting Conditional prediction and partly by the lexical items main risk, which suggests that the writer does not exclude other factors capable of disturbing the realisation of the foregoing predictions.

5.2.4.3 Marker of the conditional clause

The conditional clause of the Revoking conditional prediction is marked by what could be called the **Antithetical Conditional**. This is an open-type condition which opposes, not the prediction it qualifies, but a foregoing prediction that is posited or understood in the writer's argumentation. The realisation of the condition is sufficient to cancel the prediction.

This meaning can be illustrated in examples (63) and (64).

- (63) (11a) On the assumption of a small amount of earning drift, continued strength in the growth of other incomes and a small

increase in employment, (11b) real disposable income may now begin to recover, (11c) sustaining some renewed consumption growth. (12a) With the ending of the price freeze (12b) it is likely (12c) that inflation will increase a little, (12d) although (12e) given the earnings assumption (12f) this may mean only a marginal increase from around 5 per cent in 1984 to about 6 to 7 per cent in the forecast period.

(13a) If the price rise were to prove larger, (13b) the projected real income growth would not occur (13c) and consumption would be correspondingly weaker. (Text 47)

The writer is predicting in propositions (11a) to (12c) the future trend of real disposable income and its impact on consumption, as well as the future trend of inflation over the forecast period, which is 1984. The conditional clause, "If the price rise were to prove larger", in which the expression price rise is a paraphrase of the term inflation, contrasts with the prediction "inflation will increase a little or marginally to 1 or 2 per cent in the forecast period."

In example (64) on the other hand, the foregoing prediction is not put forward as in example (63), but is understood.

(64) (1a) If the dollar were to fall, (1b) contrary to the technical assumption, (1c) the forecast for real output might also be lower. (OECD/84, p.74)

Proposition (1b), contrary to the technical assumption, implies that the foregoing forecasts of real output have been worked out on the assumption that the US dollar would not fall over the forecast period. The same proposition makes it clear that it is also in

opposition to the one expressed by the Conditional. By stating (1b), for example, the writer takes for granted that the reader knows what is meant by 'technical assumption', either because it has already been discussed in the earlier argument or because the professional reader is supposed to know from his background knowledge of the subject what the technical assumption for forecasting about output is.

In the case of this particular example (64), the word technical confers some credibility and objectivity of the writer to the assumption. The assumption referred to here is found partly in the previous paragraph in the text, but more significantly perhaps, by reading much earlier in the introduction to the report.

The excerpt reads,

"One, purely technical, reason is the customary assumption of an unchanged parity".
(OECD/84, p.74)

. which is a near - paraphrase of the statement

"The projections are based on the customary technical assumption of an unchanged nominal exchange rate."
(OECD/84, p.10)

5.2.4.3.1 Forms of the Antithetical Conditional

It thus appears that what matters most in the recognition of an antithetical conditional clause is that the prediction modified should be in contrast to another preceding one. Evidently, such a relation is normally marked on the surface partly by antithetical

adjuncts (Borkin:1979) such as however, on the other hand, at the same time etc. and partly by such useful expressions which more or less mean "contrary-to-assumption" as in example (65) below.

But perhaps, most importantly of all, the form of the antithetical conditional seems to be exclusively **If...were to**.
(2*)

- (65) (1a) Given the breakdown of wage negotiations in important industries, (1b) some uncertainty also attaches to the inflation outlook; (2a) if labour costs were to rise faster than assumed, (2c) inflation could also be higher.
(OECD/84, p.92)

The form **if...were to**, coupled with the contrary-to-assumption expression faster than assumed makes the antithetical character of the conditional clause in example (65) explicit. In fact the previous prediction that the contrasting conditional prediction opposes is found much earlier in the text. The extract reads:

- (66) Reflecting slower productivity growth and some pick-up in pay rises, unit labour cost increases are projected to accelerate a little. Together with higher import price increases, this may lead to a slight rise in inflation 1985. (OECD/84, p.91)

The forecast under consideration is that of inflation. This has been forecast to rise slightly in 1985 on the assumption of a small increase in unit labour costs. The slight rise is contrasted in the antithesis to a high rise, should the antithetical condition materialise. However, as Pindi and Bloor (op.cit) point out, by coupling it with a contrary-to-

expectation expression, the writer makes the antithetical conditional unlikely to be fulfilled with obvious implications for the prediction.

5.3 Structure of the conditional clause

The conditional clause co-occurring with economic predictions does not have a single syntactic structure. It is found in the corpus that the conditional clause may be realised in one of the following six major syntactic patterns, based on Huddleston's description of modern English (Huddleston, 1984).

The most widely attested is the structure in which the explicit Conditional Marker (CM) is followed by a Noun Phrase (NP) and a Verbal Phrase (VP) in which the verb may have the following forms:

i. the simple present tense (active, passive or stative) as in example (67).

(67) a) active

(7a) In addition, it is unlikely (7b) that interest rates abroad will rise significantly. (8a) However, a reduction in French interest rates might be postponed (8b) if a fall in the dollar puts pressure on the EMS. (Text:32)

b) passive

(1a) The timber trade was helped by the significant growth in timber frame construction for new houses, (1b) and if the larger slice of the market can be maintained (1c) when recovery eventually comes, (1d) then there will be a marked growth in the demand for wood in home construction in the UK. (WCO/83, p.96)

c) stative

(9a) If US long-term rates ease, (9b) German rates would follow (9c) as domestic factors are not against lower capital market yields. (Text 11)

ii. the present perfect tense as in example (68).

(68) (1a) If labour force withdrawals have been mainly temporary, (1b) then the continuing improvement in conditions could encourage returns to the labour force, (1c) perhaps coming close to a full percentage point addition over the forecast period. (OECD/84, p.76)

The conditional clause in these sentences thus have the formulaic structure:

!-----!
! CM + NP + VP (V-pres.) !
!-----!

Markers likely to be found in such a structure are: IF, especially if, certainly if, particularly if, Only if, Only...if, though the latter variant of the Absolute conditional allows some verbal elements of the prediction clause to be embedded in the conditional clause.

A variant of this structure is that expounded by conditional clauses with another clause/sentence embedding as those characterising the Reinforcing Conditional. A further example of such a conditional clause is (69).

(69) (11a) If, (11b) as expected, (11a) copper prices experience some recovery during the first half of 1984, (11c) the price of aluminium is likely to renew its upward movement (11d) since the growth in demand may well continue to outstrip increases in supply (11e) resulting in a further depletion of producer stocks. (Text 66)

In which case, the structure would be represented by such a formula as:

```
!-----!
! CM + S + NP + VP (V-pres.) !
!-----!
```

A somewhat similar structure keeps the same sentence components but has the verb in the VP in the subjunctive mood, as illustrated in example (70).

- (70) (1a) If the depreciation were limited,
 (1b) and expected to be so, (1c) the
 short-term effects on output would not be
 such as to jeopardise the recovery - (1d)
 indeed the eventual reallocation of output
 towards reducing the external deficit
 would bring a more sustainable pattern of
 expansion. (OECD/84, p.74)

Thus, the conditional clause of example (70) displays the structure:

```
! CM + NP + VP (V-subjunctive)!
!-----!
```

The use of the subjunctive mood in this structure extends to such forms as: should X happen, or particularly should X happen, discussed earlier in which the modal plays the role of particle IF. Related to the above patterns is the one in which the verb consists of verb BE followed by a To-infinitive clause. The auxiliary verb BE in the structure is predominantly in the form WERE. An example is (71).

- (71) (1a) If the dollar were to fall, (1b)
contrary to the technical assumption, (1c)
 the forecast for real output might also be
 lower. (OECD/84, p.74)

The structure this example illustrates is:

! CM + NP + VP (V - BE + to infinitive clause) !
--

The fourth structure is similar to the one portrayed above, save for the fact that the NP is necessarily a dummy there and the verb in the VP is necessarily a form of BE. Unlike the foregoing structure, however, two variants are noticed.

The first is that in which the conditional marker is followed by the dummy construction there is, as in example (72).

- (72) (1a) Mill use will probably decline again in Western Europe (1b) since, (1c) despite an aggressive EEC policy to curb textile imports, (1b) import penetration is likely to continue, (1c) albeit at a reduced rate, (1e) and if there is a recovery of economic growth (1f) it will be weak: under 2 per cent. (WCO/83, p.72)

The second variant being that in which the conditional marker is followed by the dummy construction there were, which in turn is followed by a to-infinitive clause as in example (73).

- (73) (1a) France's level of competitiveness is unlikely to deteriorate significantly (1b) especially if there were to be a further downward adjustment of the franc's central parity against the D.mark. (IES,30/11/83)

As Huddleston (op.cit:68 & 467) points out, although the dummy element superficially stands for the NP, the real referent is extraposed in the VP. It is interesting to note that the NP in our corpus stands for an event of economic interest such as: destocking of

oil, a further downward adjustment of the franc's central parity against the D.mark etc.

The formula for this pattern is:

! CM + dummy THERE BE clause !
!-----!

Another widely used structure is that in which the marker is followed by a verbless clause. In the corpus, the structure consists of a Prepositional Phrase (PP) in which the preposition is a Conditional marker. The preposition-cum-conditional marker in this case is either simple like without as in example (74) or complex like In the event of, only in the case of, only in the unlikely event of as in example (75).

(74) Simple preposition

(1a) Without a resumption of stronger final demand growth, (1b) the recovery could quickly run out of steam. (IES, 31 May 1983 p.1)

(75) Complex preposition

(1a) On balance we expect (1b) that monetary policy will not be tightened significantly (1c) but that M2 is more likely to threaten the upper limit than lower limit of the target range. (2a) In the event of any tightening (2b) its extent would be severely limited by consideration of the adverse effect of higher interest rates on the major LDC debtors. (IFS, 12 /10/ 84 p.4)

Cases in which the conditional marker is not a preposition but an IF followed by a verbless clause are also included in this group. This is the case with the conditional clause if so in the following prediction.

- (76) (26a) The Japanese in particular must have failed to reduce their stocks of ore and ferro to normal levels, (26b) having geared their purchases to a level of steel production (26c) that never materialised, (26d) and (26e) if so, (26d) are likely to be aiming again for a reduction of stocks in 1983/84. (Text 60)

The structure above portrayed may be summarised in the formula:

!-----!
! CM + verbless clause !
!-----!

Finally, there is the structure in which the conditional marker is followed by a clause with a non-finite verb. The non-finite form is especially a participial as in example (77).

- (77) (14a) If required, (14b) INRO intervention will establish a lower limit for prices in the short-term. (Text 79)

The formula of this structure is:

!-----!
! CM + non-finite clause !
!-----!

Variations to these structures exist and are examined elsewhere in the chapter but it is possible to summarise the above six patterns in **Table 8** along with their frequency of occurrence.

Table 8: Major syntactic structures of the Conditional Clause

Pattern No	Clause structure	Frequency	
		Instances	Proportion
ia	CM + NP + VP (V - pres.)	84	60%
ib	CM + S + NP + VP (V-pres.)		
ii	CM + NP + BE to - infinitive clause	15	11%
iii	CM + dummy there BE clause	13	10%
iv	CM + verbless clause	13	10%
v	CM + NP + VP (V - subjunctive)	11	6%
vi	CM + non-finite clause	5	3%
Total		140	100%

5.4 Significance of the Conditional clause position

Building on Halliday's idea of thematic meaning whereby clauses are defined as marked or unmarked on syntactic grounds (Halliday, op.cit), it is possible to detect some linguistic significance to the sentential position of a conditional margin in relation to the economic prediction it modulates. In other words, conditional clauses may acquire different functions by virtue of whether they precede or follow or for that matter, are intraposed within the prediction clause, which is considered in this analysis as the sentence nucleus.

There does seem to be little evidence in the corpus for the significance of intraposed conditional clauses since there is only one instance in which the position is attested. The example is (78).

- (78) (5a) With the expected fall in inflation
(from 9.6 to 7%), (5b) interest rates,
(5c) if they are not reduced, (5b) will
reach unprecedented levels in real terms
(about 6% for short-term money, against an
average of 0.5%, over the past fifteen
years. (Text 25)

The counts also probably suggest that some categories of conditional clauses isolated in the analysis, have a greater incidence of fronting than the others. We attempt to account for this variation both on semantic and syntactic grounds.

5.4.1 Pre-nuclear Conditional clauses

Conditional clauses marked by the Antithetical and the Unmarked conditionals tend to be found in initial positions.

The Antithetical Conditional clause for example, usually occurs prior to the prediction it modulates. Out of 8 predictions modified by this category of conditionals, 6 have their conditional clauses in the pre-nuclear position compared with only 2 in the post-nuclear position.

It is difficult to decide whether this variation is significant or not, but it seems likely that the tendency to pre-nuclearity of the Antithetical conditional margin is syntactically constrained. One of these constraints may be the insertion of expressions meaning contrary = to = assumption, which, when sandwiched between the conditional and the prediction highlight the contrastive relation the writer wishes to make with the foregoing prediction. It looks as if the role of emphasis played by such an expression is reduced when it is placed at the very end of the sentence.

If for instance, the Antithetical conditional clause in example (64) is placed in post-modification, not only does the sentence become cumbersome but, more significantly, the contrastive aspect carried by the proposition is minimised.

(64a) The forecast for output might also be lower, if the dollar were to fall contrary to the technical assumption.

It may therefore be said that writers tend to place the antithetical conditional margin in the initial position in order to emphasize, or allow for the insertion of, contrary-to-assumption expressions.

The unmarked conditional, is also another type of conditional with a tendency to prenuclearity. This is already evident in hypothetical conditional predictions in which an IF...THEN sequence is selected. In such cases, the conditional clause must precede the prediction, probably because of the nature of the marker THEN which, being interdependent to IF, cannot occur anywhere in the sentence in order to maintain its consequential function. But where there is no IF...THEN sequence, the reason for forecasters' inclination to fronting clauses marked by the unmarked conditional may be a desire for prominence.

The writers wish to highlight the fact that the materialisation of the hypothetical conditional forecast is not only closely linked to but also consequent of the prior realisation of a foregoing central prediction. Such a desire for prominence is evident when one considers the fronting of negative conditional clauses which tend to be used to convey a warning to the readership about an unwanted future development. In other words, a hypothetical conditional prediction with a negative conditional clause in the initial position

can be said to be a bad news forecast since it denotes an unfortunate scenario that is held likely to take place as a result of an action that has failed to be taken. The conditional clause denotes the action to be taken and the prediction, the ensuing bad consequence.

This idea can be illustrated by considering the following example.

- (79) (1) The various existing schemes to reduce unemployment will cease producing additional effects next year. (2a) If these are not supplemented, (2b) the unemployment rate will probably rise during the forecast period, perhaps to almost 11 per cent by end-1985.
(OECD/84, France, p.92)

In example (79), the writer can be said to issue a warning about a possible exacerbation of unemployment, a bad outcome, should French authorities fail to take steps to supplement existing unemployment schemes.

The warning function also appears to be fulfilled irrespective of the marker used as example (80) shows.

- (80) (1a) In such conditions, (1b) unless the US authorities were prepared to tighten monetary conditions sufficiently (1c) to convey a powerful signal to the market, the dollar could conceivably continue to fall in the face of rising interest rates (1d) (until it reached a level seen by investors (1e) as assuring a satisfactory correction of the current account deficit).
(OECD/84 p.68)

In example (80), the writer predicts an unwanted development in the event of American authorities failing to take the necessary monetary measures. The clause marked by a negative form of the unmarked conditional,

here occurring in initial position provides the basis for the warning.

5.4.2 Post-nuclear Conditional Clauses

As for conditional clauses in pre-nuclear position, the significance of the final position of conditional clauses in Economic Forecasting can also be captured on functional and syntactic grounds.

Clauses marked by the Absolute Conditional as well as those marked by the Reinforcing Conditional are likely to be found in post-nuclear positions.

It is worth noting that, with the exception of the single clause in the corpus found in the front position and which is signalled by only in the unlikely event of, all clauses marked by the Absolute Conditional occur in the final position.

The tendency towards a consistent final occurrence for the clause marked by the Absolute Conditional may be explained by its role as a counterbalancing factor in the writer's argumentation. More significantly perhaps, the nature of the predominant marker only if in both of its realisations constrains the writer from placing the clause in front position.

The Reinforcing Conditional clause, on the other hand, appears to be a follow up to a prediction and hence can only come after the main prediction has been uttered.

In other words, it looks as if clauses marked by

the Reinforcing Conditional are optional parts of predictions which the writer feels are not necessary for prediction fulfilment, though their realisation will increase the likelihood of the prediction coming true.

Some clauses marked by the negative unmarked conditional can also follow the main clause. The negative unmarked conditional clause in this case tends to have the meaning of a concession. In other words, by making a prediction with a postposed conditional clause marked by a negative form of the unmarked conditional, the writer can be said to restrict areas where his predictions would not apply. An example is (81).

- (81) (1a) Food prices should continue to fall
for the rest of this year (1b) and then
rise again, more slowly, in 1985 (1c)
(unless the weather is worse than average)
(1d), giving, paradoxically, a rise of
perhaps 8 per cent in year - on -year
terms. (NIER - 108/84, p.22)

In this example, it seems clear that the conditional clause (proposition 1c) , denotes condition to which, in the writer's opinion, the prediction expressed in proposition (1a) and (1b) would not apply.

Table 9 summarises the functional types of conditional economic predictions found in the corpus, their characteristic markers of the conditional clause and the different forms of realisation of the Conditional.

Table 9 Types of prediction modulation by condition specification and characteristic markers of conditional clauses

Type of Modulation	Marker of conditional clause	Explicit Forms of Conditional Marker	Implicit Forms of Conditional Marker
Hypothesizing	Unmarked Conditional	If...were to If Provided Unless As long as Should without In the event of In the unlikely event of In the absence of (3*)	any assuming on the assumption of
Disclaiming	Absolute Conditional	only if only...if only in the case of only in the unlikely event of	a precondition for
Reinforcing	Reinforcing Conditional	especially if particularly if particularly should certainly if at least as long as	
Revoking	Antithetical Conditional	If...were to	

5.5 Notes to chapter five

(1*) Reinforcement as used here has of course a different meaning from that given to it by Labov and Fanshell (1977:47), i.e. "contributions of the listener to the interaction, which do not convey highly specific messages". In other words, Reinforcement in their sense refers to the role played by fillers uttered by an interlocutor such as Mhm, Uh-hum etc. to encourage a speaker to keep on talking during a conversation.

(2*) The reverse is not necessarily the case since the form if...were to can also be found to express other categories of conditionals.

(3*) At least in the hypothetical acceptance of the phrase in the absence of.

Chapter Six: Modulating Prediction by Hedging

6.1 Overview

Our discussion of the schematic structure has demonstrated that Forecasting in the corpus of economic reports and surveys here analysed is the result of a given logical pattern of reasoning. The schema, in its basic form, is said to contain two episodes: Reporting and Predicting

The DPT move is a historical account of what the general direction of a given variable (e.g. Inflation) or a market item (e.g. Interest Rates, Copper etc.) has been in a specified period of time that has just elapsed. The trend described can be that of Increase, Decrease or Stability and is generally set in terms of a comparison.

The R.P.T move is an attempt by the writer to justify the market situation depicted. It can be signalled on the surface by expressions of causal relation. The B.P. move, on the other hand, provides evidence or ground on which the prediction of future trends is founded. It encompasses certain economic indicators deemed by the writer to be capable of influencing the trend of the market over an incoming period.

This move can also contain predictions, referred to in the analysis as minor predictions, which are put forward to support the main prediction which concerns

future trends.

The PFT move portrays the future scenario of the market as perceived by the writer over a specified forthcoming period of time.

A brief example illustrating the basic text schematic structure is given below.

(1)

! Move !	! Text !
! DPT !	! (1a) So far in 1984 Dutch short-term rates ! ! have been <u>relatively</u> stable, (1b) fluctuating ! ! around 6.0%. (2a) At the beginning of May the ! ! Dutch currency reached the top position ! ! within the EMS, (2b) enabling the Central ! ! Bank (DNB) (2c) to prevent Dutch Interest ! ! rates (2d) from following the rise in US and ! ! German money market rates. !
! RPT !	! (3a) The strength of the guilder within the ! ! EMS is <u>mainly</u> due to the surplus on the ! ! Dutch current account (3b) which is <u>expected</u> ! ! <u>to be</u> FL 12 billion this year. !
! BP !	! (4a) Although ! ! the inflation rate has increased somewhat in ! ! recent months (4b) it <u>will</u> remain at the ! ! rather low level of 3.5 to 4%. (5a) In ! ! addition <u>it is expected</u> (5b) <u>that</u> the recent ! ! strengthening of the economy <u>will</u> continue ! ! in the months to come. !
! PFT !	! (6a) As all these ! ! factors point to a continuing strong position ! ! of the guilder in the EMS, (6b) <u>it seems</u> ! ! (6c) <u>that</u> any decline in US rates <u>would</u> ! ! result in a fall in Dutch rates as well. !

(Text 28).

In addition to this sequencing of arguments that lead authors to make their predictions, it is noticed that the writer of this text modulates every statement he makes with words - underlined in the text - such as relatively, around, mainly, will/would and such phrases

as is expected to, it is expected that, it seems certain that. Not only do these words and expressions mark the writer's own viewpoint on the development of the market of interest rates being portrayed, but they also indicate some degree of authorial commitment to and detachment from the propositions they qualify. Consider (1a) for example.

- (1a) (1a) So far in 1984 Dutch short-term rates
 have been relatively stable (1b)
 fluctuating around 6%, (Text 28)

In this example, it could be argued that by choosing to use the words relatively and around, the writer avoids being seen as making too bold a statement about the stability of Dutch short-term rates and the exact rate, in terms of percentage, at which the interest rates have stayed. By choosing to use these words, he leaves room for flexibility and therefore protects himself against any other economist who might come out with another assessment of current developments in the Dutch interest rate markets.

Similarly, in a prediction such as

- (1aa) (3b) The Dutch current account is expected
 to be FL12 billion this year, (Text 28)

the writer can be said to leave open the question of knowing who it is who expects the current account turnover to reach FL12 billion.

6.2 Purpose of the Chapter

The purpose of the present chapter is to examine authors' strategies of hedging -in the narrow sense of that term- to modify the extent of their commitment to the predictions they wish to make. The predictions formulated in this way are here referred to as **Hedged predictions.**

A hedged prediction is therefore defined as a statement about a future course of economic trends or events which the writer wishes to propose with some caution or rhetorical cover. It is opposed to plain forecasting, which implies a type of unconstrained, straightforward prediction used by the writer without cover, without setting any prerequisites or else without acknowledgement of another source and for which the writers can be said to assume full responsibility.

6.3 Areas of Exclusion

As the focus of attention in this chapter is on authors' use of hedged predictions, the following areas are excluded from discussion at this point.

I.- Any type of economic prediction modulated by authors using a strategy other than modality, more especially conditional and attributed predictions. A discussion of these types of proposition modulation is to be found in Chapters Five and Seven of the thesis.

II.- All propositions modulated by writers using

modality, but which are not economic predictions. An example is (2).

- (2) (5) The stability of short-term interest rates can largely be attributed to a wait and see attitude by the UK monetary authorities. (Text 14)

III.- All propositions, though using modals, that amount to plain forecasting as in example (3).

- (3) (1a) The continuing growth of Cobalt production capacity during 1983 makes it unlikely (1b) that world output will continue the declines witnessed since 1980. (2a) Thus, we forecast (2b) that total output will move back up above 22,000 tons. (WCO/83, p.68)

In this example, propositions (2a) and (2b) contain a non-modulated or plain prediction.

Plain forecasting is attested in the corpus and has been found in the analysis to be characteristic of the PFT move, as shown in Chapter Four, section 4.4.2.1.2. But as noted here plain forecasting, especially using will is often seen by expert writers as too direct and untypical of English. Furthermore, there is a requirement that forecasters need to make their predictions cautiously in order to maintain the reputation of the institutions on behalf of which they write (Pindi & Bloor, op.cit). This reservation is reflected in the choice of lexical items likely to appear as mitigating the force of the predictions.

Plain forecasting, therefore, is excluded from this discussion because its explicitness does not appear to be illustrative of authorial proposition modulation .

IV. The last area we wish to exclude from the discussion of hedging is what has been referred to as approximators. Features of approximation abound in the corpus and are mostly found wherever there is a Trends description/prediction, notably to give an idea of the figure involved in the description or the prediction.

In example (1a) quoted above, for instance, the hedge around used by the writer to qualify the figure 6% helps him avoid stating exactly what the real rate of interest was. The hedge both implies that the interest rates were not fixed at a particular figure and also that the writer protects himself against any other economist who might find otherwise. However, this hedge qualifies the figure involved in the proposition and not the proposition itself. Additionally, the form of a prediction is not affected by the fact whether it contains a precise or an approximate figure. Hence our inclination to discard these forms of hedging.

6.4 Strategies of Hedging

Applied linguists generally agree that it is possible to delineate two layers of hedging. Prince et al (op.cit) distinguish the speaker's use of fuzziness in the propositional content of an utterance (approximator) from fuzziness in the speaker's own attitude towards the context of the utterance (shield). Stubbs (op.cit), acknowledges that speakers can shift

their commitment to the content of an utterance in some sense and to their own attitude to this content, while Skelton (op.cit), simply labels as hedging "what the speaker (says he) thinks about what he says".

The findings of the present analysis, however, though confirming that economic forecasters may choose to modulate either the propositional content of a prediction or their own attitude to this content, reveal that there is an interaction between these two layers, as illustrated by an abundance in the corpus, of forms of modality exemplifying both types of hedge.

Halliday and Hasan (op.cit, 134) argue that modality is expressed by modal verb forms such as will, would, can, could etc. or by modal adverbs like perhaps, possibly, probably, certainly, surely etc. While these forms abound in the corpus and are indeed exponents of approximators, it seems inappropriate to examine 'modals' separately from 'indirect statements' as suggested by Rounds (op.cit), since these two features are usually found together. This is shown in example (1 in which the indirect form it is expected that for instance cannot be accounted for separately from the modal will, as we shall argue later in the chapter.

Examples such as (1aaa) raise some interesting questions.

(1aaa) (5a) In addition, it is expected (5b) that the recent strengthening of the economy will continue in the months to come.

(Text 28)

The first question is whether the expectation is to be attributed to the author or not. Secondly, the extent to which the propositional meaning of example (1aaa) above is the same as that of example (1aab) below.

(1aab) In addition, the strengthening of the economy is expected to continue in the months to come.

Similarly, the use of grammatical labels such as 'modifiers' (Rounds,op.cit.) which are known to be adjectives or adverbs, tends to exclude phrases or other expressions that can be used by a writer to hedge. Consider as an illustration the following sentence taken from example (1), reiterated here as example (1ab).

(1ab) (3a) The strength of the guilder within the EMS is mainly due to the surplus on the Dutch current account (3b) which is expected to be FL 12 billion this year.
(Text 28)

In this example, the adverb mainly in proposition (3a) can be substituted (with some change of meaning) not only by a modal adverb such as largely, probably, or perhaps found in the corpus, but also by an adverbial expression like to some extent, which is also found in the corpus but which is syntactically more complex than that of an ordinary adverb. Some of the options also found in the corpus which the writer could have resorted to for the example (1ab) are the following.

(1bb) The strength of the guilder within the EMS is due
mainly
in general
to some extent
to a comparatively large extent etc.
to the surplus on the Dutch current account.

Similarly, proposition (3b) of example (1ab) can also have the following options.

(1bbb) which is expected to be FL 12 billion this year .
is forecast to
will probably
is likely to
is most likely to etc.

It can be argued that the writer's choice of any of these various forms modifies the strength of the prediction as well as the degree of confidence the writer has in its fulfilment.

Excluding the types of modulation isolated in the preceding section, it does seem then that writers choose to modulate the propositional meaning of a prediction when they wish to:

- i. rate the chances of fulfilment of the prediction
- ii. reformulate their commitment to it
- iii. assert their judgement about a future scenario

6.4.1. Rating prediction fulfilment chances

The most common type of hedge in the economic reports examined here may be called **prediction raters**. These are hedges used by the writer to assess the chances of fulfilment of a future economic trend or event.

doubtful of the occurrence of a given scenario.

- (5) (9a) However, with yields on long-term government securities now down to 10.25%, (9b) little further reduction in long yields seems likely, (9c) given (9d) that short rates and the inflation rate are both at or past their cyclical lows.
(Text 21)

In this case the expression little, coupled with seems likely, suggests that the writer discards a further reduction in long-term interest rates as a likely scenario over the coming period, for reasons expounded in propositions (9a) and (9b).

The analysis also confirms that, while wishing to cast doubt or assert certainty about the fulfilment of a future economic trend or event, the writer, by using this type of hedge, expresses some degree of personal commitment to the truth or falsity value of the prediction.

Consider these next two examples in which the writer can be seen to be rating highly the chances of fulfilment of his predictions. The writer may wish to propose his forecast by stating one of the following.

- (6a) (1) In 1985, the external deficit is set to widen further. (IFS, 12/84 p.2)
- (6b) (6a) In any event, with economic growth continuing at no higher a rate than over the past year, (6b) unemployment seems set to continue to rise over the coming year.
(Text 91)
- (6c) (1a) Given tax incentive, (1b) strong investment growth looks set to continue through 1985. (UK-ES, 8/10/84 p.2)

Although the writer can be seen by the use of the lexical item set in all these instances to be fairly certain about the materialisation of his predictions, it is still possible to argue that he might not have the same degree of conviction in all these instances. It is possible to sense that the writer sounds more convinced in example (6a) than he is in (6b) and less so still in example (6c).

To account for variations in the way authors modulate both the degree of certainty and the degree of confidence towards the predictions they make, we have had recourse to two different but complementary measuring instruments.

The first is linguistic and consists of two operational concepts: the **scale of certainty** (Holmes, 1982 & op.cit) and the **Strength of claims** (Geis, op.cit).

The central idea about the scale of certainty is that by choosing to use hedges, it is possible to tell whether the speaker/writer is sure or less sure about the truth or falsity value of the propositional value of his utterance/statement and that it is possible to rank the degree to which he appears to be certain or uncertain onto a scale.

Holmes provides, in simple terms, the categories of this scale.

I. **Certain**: The speaker asserts with certainty that the proposition is true or not true.

II. **Probable:** Speaker asserts that the proposition is probably true or not true (i.e improbable).

III. **Possible:** Speaker asserts that the proposition is possibly true or possibly not true.

Although in the context of forecasting, it is easy to agree that propositions have no real truth value since nothing is certain in the future (Lysvag, 1975:134), we have found the scale of certainty workable for the purpose of analysing hedges in the corpus and these have been found to express **Doubt**, **Possibility**, **Likelihood** and **Certainty**.

An operational formula for measuring the relative strength of claims, on the other hand, has been provided by Geis (op.cit: 86ff). This states:

"A proposition P is logically stronger than a proposition Q if and only if P entails Q and Q does not entail P."

This formula has yielded the scale of logical strength of predictions which helps us capture the extent of author commitment in terms of **Weak**, **Moderate** and **Strong**.

Rather than relying on the researcher's own intuition only for an analysis against both these scales, a sample of typical hedges, occurring both in and out of real textual context has been selected and tested on a number of native speakers of English with different educational backgrounds by means of a questionnaire (see Chapter Three).

The results, based on 25 respondents, confirm that there does seem to be a distinction between the writer's assessment of the chances of fulfilment of a prediction and the extent of authorial commitment to it in that, within the same point of certainty scale, the writer may choose, by the use of one language form over another, to make his prediction more or less forcibly.

For example, by using the form likely to or most likely, the writer is not seen by our respondents as assessing more highly, in most likely, the chances of fulfilment of the predictions in which the form is found. Rather, the respondents see most likely as an expression of a stronger commitment on the part of the author.

The results, also suggest that the division in the scale of certainty especially is not as watertight as might appear in that the force of some hedging expressions has not been rated at any specific point on the scale.

For example, while a prediction like p is possible is seen by the respondents as the writer's assessment of possibility, the same respondents see the writer's assessment of the chances of fulfilment of a prediction signalled by an expression such as p is a strong possibility as moving towards likelihood or greater possibility.

On the basis of intelligence gathered from this small scale survey, the various hedges used by writers

to assess the chances of fulfilment of a prediction are summarised in **chart 3**. They are plotted in a graph showing the scale of commitment on the vertical axis and that of certainty on the horizontal one. While the scale of commitment reflects the author's potential attitude towards a prediction, the scale of certainty implies the writer's confidence with respect to the fulfilment of the prediction.

chart 3 hedging expressions of rating the likelihood of		Prediction fulfilment
S	will very likely	is to
C	is the most likely	will
A STRONG	there is every prospect that X ...	would certainly
L	will p seems to be the most likely	would
E	there seems to be every likelihood that X ... will p	
O	will no doubt	
F	will almost certainly	
MODERATE	is possible there is scope for p there is the possibility of p X creates room for p	It is clear that X ... will / would p It seems certain that X ... will / would p seems certain
C	will presumably may well could well might well	
O	will probably be expected to should	
M	there could well be a strong possibility there seems a good chance that X ...	
M	will p be likely/projected to be predicted / forecast to	
I	can/may/could be expected to	
T	it seems probable that X will p	
M	it is expected that X will p	
E	it is likely that X will p	
N	there is likely to be p	
T	seems more likely that p seem likely to it seems likely that ... will the likelihood is that p	
WEAK	seems possible may could there should be (some) scope for p	one might expect one would expect p
POSSIBILITY SCALE		LIKELIHOOD OF CERTAINTY CERTAINTY

In order to cast doubt on the chances of fulfilment of a forecast, the writer resorts to the expressions found at various points on the scale of certainty that appear to convey a negative meaning (see chart 4).

Chart 4 : Hedging expressions of Doubt

STRONG	! it is highly unlikely that X will p
	! very unlikely
	! not very likely
	! it is far from clear that X will p
	! it is far from certain that X will p
	! it is doubtful whether X will p
MODERATE	!
	! is not in prospect
	! is unlikely
	! seem unlikely
	! it seems unlikely that X will p
	! it seems doubtful whether X will p
	! it is not expected that X will p
WEAK	! no X is expected
	!
	! there is less scope for p
	! there is little prospect of p
	! have little prospect of
	! there is little reason to expect
	!

DOUBT

In both scales, it is interesting to note that the range of forms used by the writer is wider at the level of "Likelihood" on the scale of certainty and at the level of "moderate" on the scale of commitment than at any other level in both scales. This probably suggests that when making a prediction there is a greater chance for the writer to hedge his bets with an expression of likelihood, using a moderate tone than any other strategy.

It is not clear, however, in the context of economic forecasting, whether by choosing to modulate his prediction with an expression of likelihood, the writer can be said not to be entirely sure of the truth^(1*) value of a prediction. Some linguists (Holmes, op.cit, Pilbeam et al:op.cit) have even contended that by using such an expression, the writer is only 60 to 70 per cent sure of the truth value of the proposition.

We set out to find out what the respondents thought the reasons behind the choice of expressions of likelihood were in the context of economic forecasting. In order of importance, 22 of the respondents thought that the use of these expressions largely depended on whether or not the forecaster is totally sure of the future, while 2 didn't think so and 1 didn't know. Nevertheless, most of them were quick to point out that it is very rare for a forecaster to be totally sure of what will happen.

Respondents with a background in Economics argued that this uncertainty about the future is due partly to the fact that Economics is an imprecise science, with few immutable laws and many dynamic constraints. Another reason is the nature of the economy of a country or of the market being surveyed which is generally extremely uncertain and influenced by many different factors. The tentative undertone to most economic forecasts signalled by the above hedges must therefore be seen partly as a

reflection of the disciplinary culture of Economics.

Respondents who were students of Linguistics and language teachers additionally observe that by using such forms as likely to etc., the forecaster is suggesting the possibility of something going to happen. If it does not happen, (e.g If there is no drop in the exchange rate of the dollar), then the forecaster cannot be so strongly criticised for an inaccurate forecast by making use of likely to rather than will. Therefore the non-committal nature of forecasting language must be seen as a means by which the writer attempts not to lose credibility.

The second major reason generally agreed upon by respondents - 68% against 24% NOs and 8% DON'T KNOWs - is that the range of hedging forms enables writers to achieve stylistic variation in that it helps forecasters avoid the repetition of the same language form such as will over and over again throughout a report or survey. 44% of the respondents, on the other hand, -as opposed to 28% NOs and 28% DON'T KNOWs- think that by hedging with expressions of likelihood rather than certainty, the forecasters make their view more acceptable to their intended audience. Lastly, only 40% -against 36% NOs and 14% DON'T KNOWs- feel that there is any relation between hedging and English culture. Those who do, argue that English people like to express their opinions in a cautious or tentative way whether or not they feel strongly, because they do not like to be proved wrong.

Also, because of the characteristic English preference for understatement.

Although due to a small sample studied we cannot make any generalisations about the use of modality/hedging in Economic Forecasting, the results of the survey give us an indication of how educated native speakers of English perceive hedging as an area of language use in a professional context. Furthermore, as the same survey reveals, NSE do not think that these hedging forms would be used as extensively in other areas of language use such as Everyday English, Scientific, Instructional or Legal English etc (see **appendix 5**). It is therefore possible to conclude that modality/hedging is a significant linguistic feature of Economic Forecasting.

6.4.1.1 Linguistic Realisation

Syntactically speaking, hedges used by the writer to rate the chances of fulfilment of a prediction seem to fall into two categories referred to here as **Intra-propositional** and **Peri-propositional** Hedges, in line with their position vis a vis the prediction clause.

Intra-propositional Hedges largely occur at the level of the Predicate of the sentence (P-level) while Peri-propositional Hedges occur at the outer level, especially at the beginning, of the sentence (S-level) in which the prediction proposition is found. The

emphasis is on "largely" because some items like probably, certainly identified here as intra-propositional can occur at the periphery of the proposition while some other items such as it seems which would be classified here as 'peri-propositional hedge can be inserted into the proposition they qualify. Nevertheless, we found the Intra-/Peri-propositional dichotomy feasible for the purpose of describing the predominant syntactic realisation of hedges used to rate the chances of fulfilment of a prediction.

Let us consider the following example.

- (7) (1a) At the same time, the sharp upturn in manufacturing investment looks set to be sustained through next year, (b) while the recent destocking phase should not prove long-lasting. (UK-ES, 8/10/84 p.1)

In this example, the hedges looks set and should in both predictions expounded in propositions (1a) and (1b) are found within the prediction proposition itself, while in example (8) below, the hedging expression occurs at the periphery of the prediction clause.

- (8) (1a) A tendency in a number of countries to concentrate price changes at the beginning of the year makes it difficult to judge the recent trend of manufacturers' selling prices, (1b) but it looks as though in most of the OECD area (1c) there has been a gentle underlying acceleration (1d) and it seems likely that (1e) this will continue. (NIER, 108/84, p.22)

Although there are some other hedges in this example makes it difficult in proposition (1a), it looks as though in proposition (1b), the hedge it seems likely

that is the only one modifying the strength of the prediction that the gentle underlying acceleration in the trend of manufacturers' selling prices will continue.

6.4.1.1.1 Intra-propositional Hedges

Economic forecasters appear to have a range of lexical and syntactic options to hedge a prediction at the P-Level.

The most common strategy is the use of modals may, might, could, should, can, would, and the modalized form BE (un)likely to. For example,

- (9) (5a) The deficit is unlikely to be cut significantly in the short-term (5b) and renewed upward pressure on interest rates could re-emerge in the new year. (6) However, the extent of any rise is likely to be modest. (Text 30)

As they stand, these forms are perceived by educated NSE as indicating a mild degree of author commitment to the predictions they modulate. Interestingly, however, there seems to be a shift in the degree of author commitment, from weak to moderate or from moderate to strong, when the writer opts to qualify these modal forms.

Predictions hedged by the modals might, could and may for example all have values ranked by educated NSE as 1.1, suggesting that they are used as alternatives and that it is therefore irrelevant which of these modals the writer uses to make a prediction. The

commitment, however, is stronger when the modals are coupled with the adverb well . For example ,

- (10) (1a) Assuming the continuation of favourable weather for the 1984/85 crops,
(1b) overall foodstuff prices could well fall over the next few months (1c) and could be 6% lower in SDR terms at the end of 1984 than a year earlier. (IES,6/9/84 p.3)

While the modal could in proposition (1c) indicates that the writer assesses the chances of fulfilment of the prediction as those of possibility (value 1.1), could well in proposition (1b) on the other hand suggests that the writer rates the chances of fulfilment of the prediction more highly, to the point of strong possibility or likelihood.

While should and can appear to be used in predictions in basic forms, would is sometimes qualified thereby indicating either a strong or moderate degree of author commitment as in would certainly and would probably respectively.

An example is (11).

- (11) (1a) It should be possible both for the ITC to dispose of the remaining 8,000 tons of tin (1b) required of it and for export controls (1c) and production cuts to be a little relaxed in the first half of 1984.
(2a) Export cutbacks among producer members would probably have to remain around 30 per cent, (2b) but with the prospect of much more substantial relaxation in the second half of 1984.
(WCO/83, p.22)

Will, on the other hand is an interesting case in that it is generally felt to be a strong marker of the degree of author commitment but it could be softened

when some qualification is added to it. In fact, it is somewhat interesting that the population surveyed for rating the force of hedging expressions gave a lesser value to will no doubt, will presumably, will very likely, and (by analogy) will almost certainly. For example,

- (12) (16a) The austerity policy should continue to affect household demand (16b) and both private consumption and residential construction will presumably continue to decline during the forecast period.
(Text 39)

BE (un)likely to and (BE) set to on the other hand are used as modals by forecasters when hedging their bets. However, BE (un)likely to can be strengthened or softened by the use of expressions of quantity more, most, very or less.

Another category of lexical items forecasters tend to use in order to moderate the extent of their commitment to predictions is a set of existential verbs in lieu of BE. These are principally seem and look. Examples (6b) and (6c) quoted earlier provide a good illustration of this use.

Intra - propositional hedges are also by and large syntactically realized through **Passivization**.

In the corpus, the verbs used in this sense are project, predict, forecast which are performative verbs of prediction and expect which is sometimes referred to as a private verb (Stubbs, op.cit). While the performatives are only passivized with BE, the verb

expect is additionally found to occur in the passive form with modals. Hence we have such forms as:

Be	projected		can	
	predicted to	and	may	be expected to
	forecast		could	

found in context such as (13),

- (13) (20a) A roughly zero contribution to growth from stockbuilding is forecast for the USA and Canada next year (20b) and it may well become a negative influence on German growth. (Text 86)

It could be argued that since it allows the deletion of the agent, passivization by the same token allows avoidance by the author of commitment to certain propositional information (Stubbs, op.cit:20), especially when we find such construction as we forecast that p and we expect p in the corpus.

However, it is equally possible to argue that the underlying attributee of the propositional content remains the writer himself and that passivization is a strategy resorted to by writer to moderate rather than avoid altogether commitment to the prediction. After all, when the writer wishes to avoid commitment he makes use of attribution and sometimes, especially in the context of forecasting makes use of the word generally in the passive construction. Let us consider example (14) for illustration.

- (14) (1a) World demand for metals is generally expected to continue to improve during the remainder of 1984 (1b) and 1985 primarily reflecting the strength of the capital goods recovery in the United States. (IES, 6/9/84 p.3)

It may be argued that, in this example, by using the word generally the writer is suggesting that his view of the future course of the American budget deficit is shared by other forecasters.

6.4.1.1.2 Peri-propositional Hedges

Unlike intra-propositional hedges, peri-propositional hedges are by and large linguistically realised as impersonal constructions.

6.4.1.1.2.1 It - construction

This is the most common syntactic realisation of peri-propositional hedges and it is syntactically an extraposed NP-complement. In the vast majority of cases, the It-construction anticipates a forecast that is likely to be perceived as delineating a strong author involvement, expounded by the modal will. Indeed, the peri-propositional hedge therefore acts to moderate a forecast that could otherwise be perceived as a strong claim. In this case therefore the modal will ceases to be indicative of a strong authorial involvement.

Economic forecasters, hence, use such forms as the following to discard a given scenario as a possible course of future trends.

It is highly unlikely that (X will) p
It is far from certain that (X will) p
It is doubtful whether (X will) p
It seems unlikely that (X will) p
It seems doubtful whether (X will) p
It is not expected that (X will) p

An example is (15).

- (15) (34a) It seems doubtful (34b) whether the proposed International Antimony Organisation, (34c) which (34d) the meeting decided (34c) should be set up in October 1983, (34b) will be a sufficient means (34e) of bringing output into line with demand, (34f) though its work (34g) in collecting information about the market (34f) may be an indispensable preliminary to such action (34h) and its promotion of Antimony uses will be beneficial.
(Text 57)

The following expressions on the other hand are used by the writer to assert the chances of fulfilment of a given scenario perceived by the writer to portray a future course of economic trends or events.

It seems probable that (X will) p
It is expected that (X will) p
It is likely that (X will) p
It is clear that (X will/would) p
It seems certain that (X will/would) p
It seems likely that (X will) p

An example is (16).

- (16) (12a) With the ending of the price freeze, (12b) it is likely (12c) that inflation will increase a little, (12d) although (12e) given the earnings assumption (12d) this may mean only a marginal increase from around 5 per cent in 1984 to about 6 to 7 per cent in the forecast period.
(Text 47)

In both groups, the lexeme seem appears to act as a softener of BE in It - constructions. It may be also argued that It - constructions can sometimes be construed as a paraphrase of some passivized intra-propositional hedges. This is however predictable, according to Transformational Grammar. The expression X is expected to p for example can be easily paraphrased

by the construction It is expected that X will p without affecting the meaning of the prediction.

As argued earlier for intra-propositional hedges, peri-propositional hedges expounding an it-construction must be -unless proven otherwise in the immediate context in which they occur- attributed to the writer himself since, when the writer opts for detachment, he resorts to attribution or to an expression such as generally, denoting an opinion shared by other forecasters.

6.4.1.1.2.2 There - construction

This is the second largest syntactic realisation of peri-propositional hedges. As for the other two constructions, this syntactic option is resorted to by writers to either discard or assert the chances of fulfilment of a given scenario.

We therefore find such expressions of doubt as:

- a) There is less/little scope for X to p .
- b) There is little prospect of X to p

or expressions of likelihood as:

- c) There could well be p
- d) There is (some) scope for X to p
- e) There seems a good chance that X will p
- f) There is likely to be p
- g) There seems a strong possibility that X will p
- h) There is every prospect that X will p
- i) There seems to be every likelihood that X will p

An example illustrating this syntactic pattern is (17).

- (17) (1a) Inflation has fallen to its lowest level since February 1979 and, (1b) given our forecast for it to continue falling, (1c) there is some scope for the central bank to aid economic activity by allowing a decline in Italian short rates of about 2% - 3% over the next twelve months.
(IFS, 12/10/83 p.4)

Expressions (a) and (b) appear to be negative counterparts of (d) and (h), signalled by lexemes of semantic negation less and little.

In the literature of English Grammar, there in such constructions is known to be a dummy element. In this context it appears to be occasionally used by writers to permit the introduction of an expression of stronger commitment, especially in cases where there co-occurs with every. For example,

- (18) (1a) There seems to be every likelihood
(1b) that, in the major grain and soyabean market at least, (1c) supplies of foodstuff commodities will increase in 1984/85.
(CSF, 26/7/84 p.2)

To appreciate the force of the co-occurrence of there + every in this example, one should contrast it with example (19) below, in which it may be argued that the writer moderates the tone of his forecast.

- (19) (1a) The likelihood is (1b) that this year's upward pressure on expenditure will be evident through next year.
(UK-FS ,12/83 p.4)

6.4.1.1.2.3 One-construction

This is the third way in which the peripropositional hedges can be expressed. We find such expressions as:

one would expect X to p
one would suppose that X will p

An example is (20)

- (20) (36a) The continuing operation of medium term factors, moreover, should act as a dampener on demand for iron ore, (36b) in that one would expect consumption of iron ore to grow a little more slowly than steel production, (36c) and consumption of scrap a little faster for several years to come. (Text 58)

As in other impersonal constructions, the forecast in one-constructions has to be attributed to the writer himself. This is possibly better seen in the following example in which the forecast modulated by the peri-propositional hedge one would suppose that evaluates a proposition (27d) the writer attributes to other forecasters. The attribution is signalled by the expression widely held belief found in proposition (27b).

- (21) (27a) There is a surprising absence of hard evidence (27b) to back up the widely held belief (27c) that the presence of tramp elements in scrap is increasing, (27d) but one would suppose that (27e) it will require investment (27f) to prevent its rising, (27g) and the scrap industry's ability (27h) to invest (27g) has been dealt a hard blow by the current recession. (Text 59)

Some other expressions of peri-propositional hedges, however, do not appear to be realised in the syntactic patterns discussed above. These include:

The likelihood is that X will p as in example (19),
or The chances are good that X will p as in example (22).

- (22) (1a) Given (1b) that 'market forces' can at times force the authorities' hand under the current interest rate regime in the United Kingdom, (1c) the external factor cannot be ignored, (1d) but the chances are good (1e) that 1985 will see domestic influences (1e) as being dominant.
(UK-FS, 12/84 p.2)

Apart from these syntactic options, the writer may wish to rate the chances of fulfilment of a prediction by such words as likelihood, prospect, possibility etc. In the following example for instance, the writer's assertion of the chances of fulfilment of a future course of trends is signalled by the lexeme prospect.

- (23) (1a) The fall in interest rates may not be very marked on a yearly average basis between 1982 and 1983, (1b) but some further decline from current rates is in prospect.
(WCO/83, p.2)

6.4.2 Proposition reformulators

Proposition Reformulators are a type of hedge which economic forecasters tend to use when restating their commitment to the propositional content of a prediction that has just been proposed.

Consider the prediction in example (24).

- (24) (1a) The recent decline in US interest rates is unlikely to be extended much further, (1b) if at all. (IFS, 16/11/84, p.1)

In this prediction, the hedging clause if at all, is seen as a strategy adopted by the writer to reformulate his commitment to the prediction found in (24). The use of the hedging clause seems to suggest

that the writer wishes to express his reservations as to the fulfilment of the prediction just made. Indeed, it does appear that in a case such as (24), the writer can be said not only to withdraw his commitment to the truth value of the proposition (Stubbs, op.cit) but also to restate it or present an alternative degree of commitment.

Forecasters appear to restate their commitment to the propositional content of a prediction either by negating the content of the proposed prediction, or by modifying the propositional meaning of the proposed prediction.

Let us consider these two alternatives by examining the following examples.

- (25) (46a) Increased demand will come from the
 LDCs, (46b) if anywhere. (Text 56)

In which case, by stating proposition (46b) the writer could be seen to negate the propositional content of the prediction found in (46a) with the implication that there may not be any increased demand at all.

Hedges used by the writer for such purposes are If anywhere, If at all, If any. In actual discourse, they are usually followed by nothing since they function as cohesive items of substitution or ellipsis.

Example (26) on the other hand illustrates a case where the writer modifies the content of a prediction.

- (26) (1a) Wage settlements currently show
 little sign of moderating, (1b) while
 earnings should be boosted by a continued,

(1c) if slow, rise in employment levels.
(UK-ES, 29/6/84 p.2)

In example (26), the proposition (c) if slow, is a restatement of the prediction found in clause (1b). The forms writers seem to use for such purposes are If p or If not p, where p stands for the alternative prediction presented by the writer.

Other markers however, such as if anything seem to occur in both types of prediction; that is to say, those which are cancelled only as in example (27), and those which are cancelled and superseded as in example (28).

(27) (29a) Our forecast for US inflation this year, (29b) at 5%, (29a) implies only a gradual rise from current levels, (29c) if anything, (29d) we would place the balance of risk on the lower side rather the upper side of this forecast. (Text 83)

In this example, the hedge if anything negates the propositional meaning of a gradual rise. By using the hedge, the writer implicates that the forecast may not imply any rise at all.

(28) (20a) Given the OECD estimate (20b) that its members' steel production will be 16 per cent lower in 1982 than in 1981 (20c) -with non-communist world production down a few points less (20d) because of the growth of developing countries' steel industries- (20e) manganese consumption will have fallen by roughly the same amount, (20f) if anything marginally more, (20g) since there is no reason to suppose (20h) that the slow decline in manganese use per ton of steel has come to a halt. (Text 60)

In example (28), on the other hand, the hedging proposition (20f) partly cancels the content of proposition (20e) especially the proposition of quantity

expressed by roughly the same amount, and partly supersedes it with another proposition of quantity, marginally more.

It is interesting to note that though marked by IF, these forms are not pure conditionals in any sense. Unlike other conditionals, the reformulating IF does not appear to bear the meaning of on condition that. It is therefore difficult, if not impossible to paraphrase IF in these expressions by other conditional markers such as provided that p, in the event of p, should X p etc.

Let us consider the prediction in example (29).

- (29) (21a) With further output growth in prospect, (21b) and little, (21c) if any, (21b) pick up in manufacturing employment, (21d) the increase in unit wage costs is unlikely to be much, (21e) if at all, (21d) above 4% next year (21f) and a prospective inflation rate of slightly above 5% over the winter may prove to be a peak. (Text 92)

Paraphrasing If in if any and if at all found in this example with provided that for instance would ostensibly affect the intelligibility of the prediction.

A final point on this aspect of hedging is that proposition reformulators appear to be consistently found at the end of the proposition or, more especially, of the lexical item within the proposition they seem to negate. This is probably because proposition reformulators would not maintain the same force or even make sense should they occur at the beginning of the proposition.

6.4.3. Judgement assertion

Another strategy of hedging, possibly less common, is that where the writer appears to assert his own judgement about the future course of economic trends or events. This is expounded in the corpus by such expressions as:

Look as if p
If our view is correct p
If we are right in believing that p
There are good reasons for thinking that p
There are good reasons to believe that p

Unlike prediction raters, judgement assertion hedges cannot be accounted for in terms of the scale of likelihood, though it can be argued that they still give indication of authorial commitment in that they assert the writer's own opinion.

Therefore, in example (30) for instance, by choosing to use the hedge looks as if, the writer covertly softens the tone of the prediction found in propositions (1c) and (1d), which might otherwise sound too strong to the readership.

- (30) (1a) Whilst the new Italian Government's aim of curtailing the budget deficit may be greeted with the usual scepticism, (1b) it now looks as if the Italian economy will also be lower to recover (1d) than previously expected. (IFS ,12/10/83 ,p.1)

Predictions hedged by expressions If we are right in believing that p or if our view is correct also express the writer's own viewpoint about the future course of events/trends in that the hedges implicate:"

This is what we believe will happen but the reader may not share our view".

Such an example is (31).

- (31) (1a) If our view on demand and interest rates is correct, (1b) this phase should not be long lasting (1c) even if large scale stock building seems unlikely.
(UK-ES, 8/10/84 p.3)

In this example, the hedging expression found in proposition (1a) does not appear to condition the event portrayed in proposition (1b). The prediction proposed in proposition (1b) is rather a scenario which the writer feels is dependent on another prediction, namely that on demand and interest rates. The latter prediction, however, is implied by the lexical item view. The prediction which is found in proposition (1c) on the other, and which is qualified by a concessive conditional, denotes an event that the writer does not deem relevant to the fulfilment of his proposed prediction which is expounded in proposition (1b).

The marker If in the hedge if our view is correct has, nevertheless, the force of conditionality and is capable of being paraphrased by another marker meaning if.

Example (32) for instance illustrates a case where the writer has used a variant of if.

- (32) (1a) despite the short-term risks, (1b) the underlying monetary and inflationary situation remains satisfactory (1c) and, provided our relatively sanguine view over the US interest rates is correct, (1d) UK rates should continue to trade within a

relatively narrow range throughout the
next 12 months. (IFS, 30/5/84 p.4)

Hedging expressions

There are (good) reasons for ^{thinking} believing that p
^{arguing}

seem to be used in the corpus to gear the reader's
attention to the main drift of the writer's argument,
thereby acquiring a persuasive role. An example is
(33).

- (33) (1a) The PSBR was £4.7 billion in the
first quarter of the current financial
year. (2a) This is nearly two thirds (2b)
of the £7.2 billion planned for the year
as a whole. (3a) But there are good
reasons for thinking (3b) that this rate
of borrowing will not be maintained.
(NIER-109/84, p.19)

It is difficult to state whether there -
construction in judgement assertion hedges is of any
significance other than the role of dummy element it is
known to possess. Lysvag (op.cit) points out that the
verbs think, expect, argue and believe may not always
function as hedgers in every context of use. For the
sake of argument, the verb believe for instance used in
a statement such as I believe in God has a strong
meaning and is in no sense a hedge.

It may therefore be argued that the there -
construction in the contexts of judgement assertion
hedges allows for the use of these verbs in a
progressive form.

6.5 Note to Chapter Six

(1*) Many linguists use the term probability instead of likelihood but the latter has been preferred to avoid confusion given the statistical connotations of the term probability .

Chapter Seven: Modulating Prediction by Attribution

7.1 Overview

So far we have been using the term forecasters to refer to individual economists making predictions about future developments of government policies, market trends or given economic variables such as Inflation, unemployment etc., on behalf of the particular institutions for which they work.

Whilst it may be accepted that the predictions they release normally reflect their own assessment of underlying trends, at times, some of the predictions imparted are borrowed from other sources. This phenomenon is designated here **attribution** and the predictions are designated **attributed predictions**.

An attributed prediction is therefore defined here as a statement about a future trend, action or event of economic interest that the writer consciously or unconsciously acknowledges to have borrowed from a specified source. The authorial acknowledgement is expressed by a set of signals used by the writer as a strategy for modifying the extent of his commitment to the attributed prediction.

7.2 Objective of the chapter

The purpose of this chapter is to account for the use of attributed predictions in the corpus. It is an attempt to explain why and how such predictions are made

looking particularly at the various parameters most likely to influence the degree to which the writer will be confident of their validity.

It was argued in Chapter Four that predictions were seldom free standing in the corpus. They are usually the result of a reasoned argument and are therefore supported by **Reason**, signalled by subordinators, coordinators and Vocabulary 3 items of causal relation, and/or **Basis**, signalled by the lexemes given, base, assume or their variants. This is illustrated using examples taken from one particular source: The OECD/84.

- (1) (1a) Interest rates are not expected to decline further this year (1b) and they may pick up next year, (1c) mainly reflecting the projected rise in United States' rates. (OECD/84, p.90)

Here the prediction found in propositions (1a) and (1b) is supported by the reason given in proposition (1c). The reason relation is signalled by the lexeme reflecting which can be paraphrased by because of without affecting the meaning of the whole sentence.

Example (2), on the other hand, has the prediction in propositions (1c) and (1d) being supported by a basis. This relation of Basis is signalled by the lexeme based, which, although found in proposition (1a), applies to both propositions (1a) and (1b).

- (2) (1a) Based on forecast values of employment (1b) but more particularly on past and current rates of money growth, (1c) expected inflation should decelerate

slightly further (1d) or stabilise in the coming two years. (OECD/84, p.54)

These two examples may be contrasted with example (3).

- (3) (1a) The Minister of Finance expects a Federal Government net borrowing requirement of below DM 30 billion, (1b) a level envisaged only for 1986 in the medium-term financial plan. (OECD/84, p.89)

The predictions made in examples (1), (2) and (3) can be seen to have two elements in common. First, as stated above, they are all taken from the same source, OECD/84. Secondly, they are all expressed by the lexeme expect. However, while the predictions found in examples (1) and (2) can be read as expressions of authorial expectation, the prediction in example (3) is ostensibly attributed to somebody other than the corporate author. This outsider is namely the (German) Minister of Finance.

What motivates authors to attribute some of the predictions they wish to impart, what amount of confidence they have in these attributed predictions and how they choose to express them are questions addressed in the chapter.

7.3 Categories of Attributed Predictions

Three broad though related categories of Attributed predictions can be distinguished in the corpus: **Author-endorsed**, **Rhetorical support** and **Author-detached**. This distinction is based on the following

working concepts , taken integratively .

- i. the truth value of the proposition;
- ii. the credibility of the attributee. Following Zuck and Zuck (1984), this can be said to be dependent on both training and status; and
- iii. the extent of author involvement in or detachment from the attributed proposition.

7.3.1 Author - endorsed Attributed Predictions

This category refers to attributed predictions portraying a future scenario espoused by the reporting writer. The reporting writer's motivation for resorting to an attributed prediction may vary but frequently this may occur where he has no direct access to the relevant data likely to help him make his own forecast and has therefore to rely on a source considered as authoritative.

This seems to be the case in the corpus, especially with forecasts related to government budgets and to certain commodities monitored by government departments. Consider the following example .

- (4) (8) Lower interest rates, cuts in spending and increased taxation stabilised the general government budget deficit in 1983 at around 8 per cent of GDP. (9a) The 1984 budget envisages a further reduction in the deficit (to 7 per cent of GDP) (9b) resulting from some discretionary tightening and from the automatic reaction.
(Text 40)

In this example, the prediction conveyed in proposition (9a) is attributed to a source external to

the reporting body, which is the OECD. The external source is the 1984 budget, which in the example refers to both an official report about the budget of the government of Denmark for the financial year 1984, and to the budget proper, which is a statement of government fiscal policies and the public finances of the country. Clearly, it seems reasonable to argue that the reporting writer has no first hand knowledge of government accounts and therefore can only quote government sources which, he trusts, give a fair picture of the financial position. The reporting writer's confidence in the attributee or external source appears to be expounded in the text, by the status of the referent and by the fact that the reporting writer does not ostensibly disassociate his institution from the attributed prediction.

In the corpus, the official sources quoted in this way are government departments of finance pertaining to the first world and which are therefore likely to be ranked highly by the reporting author. Hence we have such sources as The Treasury, The Treasury's budget forecasts, the Exchequer etc.

Another particular source referred to in this way and which is recurrent in the corpus is the American Department of Agriculture. Consider example (5).

- (5) (1a) According to the USDA, (1b) world soyabean production will fall to just under 80 million tonnes during the current season (1c) (ending 30 September 1984)

(1b) from a level of nearly 94 million tonnes in 1982/83. (2a) At the beginning of 1984, stocks in the three major producing nations - (2b) the United States, Brazil and Argentina - (2a) were estimated to be 25% below the levels of a year earlier (2c) and still falling.
(Text 72)

Here, one may argue that the attributee (USDA) is deemed by the reporting writer (Barclays Bank) to be the most credible institution amongst the producing nations likely to monitor matters pertaining to the crop produced. Additionally, the fact that the attributed prediction is left unchallenged by the reporting body leads us to believe that the latter does indeed endorse the future scenario as envisaged by the external source.

Another type of attributed prediction readily endorsed by reporting writers is that called here **In - house attributed predictions.**

In this context, In-house attribution refers to the phenomenon whereby reporting authors quote sources emanating from their own corporations or institutions. Let us take the example of the EIU. This institution publishes many reports, one of which is the issue of the World Commodity Outlook considered in the present analysis. The report writer interested in the copper market for example may wish to refer to other predictions released by the EIU in order to portray a forthcoming event, action or outcome of economic interest. Consider the following example:

(6) (12a) In addition, various savings are to be made on later, (12b) particularly in

the case of family allowances and unemployment benefit. (13a) This programme will not have its full effect until 1985 (13b) but it should, (13c) according to Secretariat forecasts, (13b) enable the general government borrowing to be reduced by one point of GDP in 1984. (Text 39)

In this example, both the corporate author of the report from which the quotation is extracted and that of the attributed prediction, expounded in propositions (13b) and (13c) are co-referential. But by quoting the Secretariat the reporting writer suggests that the OECD Secretariat published the forecast referred to in some publication other than the OECD Economic Outlook.

It also seems likely that although writing on behalf of their institution, individual authors often refer to generally available data as they discuss various aspects of economy. This is probably better seen in example (7), extracted from the OECD Economic Outlook, and in which the in house attributed prediction expressed in propositions (3a) to (3e) runs in the text as a major prediction, compared with other predictions made by the reporting writer found in propositions (1a), (1b) and (2).

- (7) (1a) Net banking lending to NODCs may pick up slightly this year and next, (1b) though a large proportion of these flows to countries (1c) that have had to reschedule (1b) will remain more or less "forced" lending. (2) Other capital account items are unlikely to show major changes. (3a) On this basis, (3b) the ratio of gross interest payments to exports of goods and services (3c) including net private transfers (3b) is estimated by the OECD (3d) to improve by

three - quarters of a percentage point
this year to 13.3 per cent (3e) and stay
roughly at this level in 1985.

(OECD/84 , p.65)

Here again, one may argue that because of co-referentiality between corporate author and attributee, the in-house attribution should be seen as a stylistic variation of a plain prediction. In other words, in an example such as (8) below, the attributed forecasts expressed in propositions (1a) to (2b) amount to something like our forecasts show that p.

- (8) (1a) The EIU forecasts show (1b) that total rubber consumption will drop by around 4 per cent in 1982 (1c) and will amount to only 11.6 mn tons. (2a) For 1983, a growth in demand of between 2 and 3 per cent will occur, (2b) with most of the expansion taking place in the second half of the year. (3a) Thus, for 1983, demand may total 11.9 mn tons, (3b) which will still be lower than (3c) that recorded during 1980 and 1981 .

(WCO/83, p.93)

Such expressions as EIU forecasts or (OECD) Secretariat forecasts, however, imply that the publications referred to here are statistical projections which are sometimes included in the outlook reports and some other times published separately.

7.3.2 Rhetorical Support Attributed Predictions

Another category of Attributed predictions somewhat related to author-endorsed type is the Rhetorical-Support attributed prediction.

As with the author-endorsed attributed

predictions, the rhetorical support attributed predictions may be seen as espoused by the reporting writer. Unlike the former, however, the rhetorical support attributed prediction appears to be referred to by report writers as a springboard for their own assessment of the likely future course of economic trends.

The reporting writer may therefore choose to quote somebody else's forecast as ground or evidence for his own prediction, as is the case in example (9) below.

- (9) (1a) The official economic forecast for 1985, (1b) which was published last September (1a) pointed to a continuation of recent favourable trends. (2a) Inflation, (2b) now at 2.8%, (2a) is expected to fall further to average 1.5% in 1985, (2c) the surplus on current account should rise from FL10.4 billion in 1983 to respectively FL15 billion and FL 17 billion in 1984 and 1985, (2d) whilst the improvement in the business cycle will continue (2e) although at a rather slow pace. (3a) Given also the Government's projection of a decrease in the budget deficit in 1985, (3b) and the still weak credit demand of the private sector, (3c) then, from a domestic viewpoint, there is every reason (3d) to expect downward pressure on interest rates. (Text 35)

In this example, one can see that the writer's own prediction on interest rates expressed in proposition (3c) to (3d) is based partly on his own observation expounded in proposition (3b) but more importantly on the foregoing predictions expressed in propositions (1a) through to (3a), which are attributed to the Dutch government. Here again, the referent, captured by expressions official economic forecast and government's

projection is to be regarded as a highly ranked source by the reporting writer, even though the term official forecast refers to a document and projection to a prediction.

The predictions expressed in propositions (2a) to (2e) about Inflation, Current Account (i.e budget) and the business cycle, taken by the report writer to be factors influencing the trend of interest rates, are also attributed to government sources, although unmarked on the surface.

A further example of a rhetorical support attributed prediction used as ground for the reporting writer's own prediction is (10).

- (10) (5) The position for more recent months appears somewhat better. (6a) The three months to May saw the underlying rise in unemployment slow to an average of 8,000 a month, (6b) whilst the level of vacancies notified to job centres recovered in May, (6c) following a sharp fall between December and February. (7a) However, the fundamental problem remains the prospective rise in the labour force, (7b) estimated by the Department of Employment (7c) to increase by 500,000 over the next four years, (7d) so that the unemployment total is unlikely to fall by much.
(Text 88)

In this example, the report writer has used the attributed prediction found in proposition (7c) as ground for his own prediction, which is found in proposition (7d), relating to unemployment in the UK. It is apparent that the figures released by the external source are accepted as a true record by the reporting writer. This acceptance implies that the attributee,

which is the British Department of Employment, is viewed as a credible source of such statistics.

In addition to using rhetorical support attributed predictions as ground for their own predictions, reporting writers sometimes opt to refer to somebody else's prediction in order to substantiate their own assessment of underlying trends which may be itself a prediction or just another argument expounding the writer's viewpoint. Let us consider the following example.

- (11) (20a) Since ethylene demand is likely to remain weak (20b) because of recessionary conditions, (20c) naphtha cracking is unlikely to be increased in the short term, (20d) and polypropylene prices are therefore likely to remain high. (21a) They may, (21b) according to the FAO, (21a) increase further. (22a) Although in the USA, polypropylene maintains the edge over Jute in standard weight cloth, (22b) it is less competitive both for carpet backing and light weight cloth. (Text 63)

In this example, one may argue that the attributed prediction expounded in propositions (21a) and (21b) has been resorted to by the reporting writer to substantiate his own prediction about polypropylene prices, found in proposition (20d). Here again, the attributee, the FAO, is deemed a credible source not only because of its international status but also because there is no attempt by the writer to distance himself from the attributed proposition. On the contrary, he uses the attributed forecast to sell his view on the likely future course of polypropylene prices by showing how

compatible it is with that of other sources which he thinks the reader would consider equally reputable.

The need for reporting writers to seek support by attribution, can also be sensed by the nature of the referent. On the one hand we have specific official and semi - official institutions such as the FAO, and on the other hand, the report writer opts for expressions denoting a consensus.

(12) provides an example of this. The expression many analysts found in proposition (2b) is used by the attributee to refer to the great number of forecasters interested in monitoring developments in commodity markets.

(12) (1a) It is unlikely (1b) that the price of synthetic rubber will show any increase over the next six to nine months. (2a) Demand for this product will remain fairly depressed for the time being, (2b) and, according to many analysts, (2c) price cutting will continue to take place for SBR and other products (2d) especially as there is still considerable overcapacity in the industry. (WCO/83 , p.93)

The attributed prediction found in proposition (2c), is to be seen as an argument used by the report writer to back up his own prediction which is expressed in propositions (1a) and (1b). Proposition (2b), would therefore amount to something like as many analysts have rightly predicted p or else , we agree with the view held by many analysts that p.

We do not suggest that all instances of attributed predictions used by report writers to rhetorically

support their own predictions are marked by the phrase according to, as example (13) shows.

- (13) (1a) Taking Western Europe, the USA, Japan and the three main Asian NICs, (1b) consumption fell from 19.4 mn bales in 1979/80 to 17.4 mn bales in 1981/82. (2) There is no prospect of any significant revival in the 1982/83 year. (3a) Even the most optimistic forecasts do not expect GDP growth in the seven main industrial countries to exceed 2.5 per cent in 1983, (3b) and there is much underlying nervousness about the position of the world economy and financial system.
(WCO/83, p.71)

The attributed prediction carried in proposition (3a) is used to support the authorial prediction expressed in proposition (2) that there will be no significant revival in cotton consumption.

Example (14), on the other hand, illustrates the use of attributed predictions to support an argument of a reporting writer which is not a prediction.

- (14) (22) Moreover, a lower outturn would come as no real surprise in current conditions. (23a) The last two CBI surveys in May and June could already be regarded as something of a surprise, (23b) for the balance of firms (23c) forecasting higher prices (23b) was reported to be the lowest since 1983. (24a) As the CBI commented (24b) "the decline in the proportion of firms (24c) expecting to raise prices (24b) is widespread across the different sectors of industry, (24d) suggesting (24e) that rises in manufacturers' selling prices could return to the historically very low levels of earlier last year." (25a) On the external front the last few weeks have seen a marked weakening in oil prices, (25b) notwithstanding developments in the Gulf.
(Text 89)

In this example, the attributed prediction

expressed in propositions (24b) to (24e) can be seen as supporting the writer's argument found in propositions (23b) and (23c). The whole of the quotation, prefaced by as should be understood as a forecast or comment agreed with by the reporting writer and also as an argument backing up the author's own assessment. The referent, in this case is the CBI (Confederation of British Industries), clearly ranked highly by the reporting corporate writer (Barclays Bank) with whom, one may argue, there appears possibly to be a superordinate/subordinate relationship in so far as their respective status is concerned. The CBI is the Industrial Employers' organisation in Britain and Barclays, one of its members.

However, the marker as -which in this example is the indexical feature of rhetorical support- is untypical of the other attributed predictions of this type. Example (15) for instance shows how the reporting writer can achieve the same goal without resorting to the word as.

- (15) (1a) Despite the gravity of aluminium's crisis from 1980 to 1982, (1b) certain promising trends for the longer term continue to show themselves. (2a) Firstly, all the indications are (2b) that the drive towards recycling aluminium is gaining more wide support and success. (3a) This is particularly significant (3b) where aluminium uses allow long term recycling (3c) to achieve economically high recovery rates. (4a) One such area is in the transport industry, (4b) where scrap is easily identified and isolated, (4c) and where the lightness of the metal gains massive potential energy gains. (5a)

It is estimated by Alumax (5b) that while a US car used 133 pounds of Aluminium in 1981, (5c) in 1990 it will use 200 pounds.
(WCO/83, p.15)

In this example, the reporting writer discusses the industrial uses of a commodity item, Aluminium, whose market is the subject of the report. The attributed prediction, found in propositions (5a) to (5c) can be seen as substantiating the reporting writer's foregoing argument, particularly that expressed in propositions (3a) to (3c).

Lastly, rhetorical support attributed predictions seem to be used by report writers as units of comparison. This usage is more or less congruent with Specialist Informants' hunches that one purpose of issuing forecasts is to compare themselves with other institutions with which they are in competition. To quote Robert Miller:

"so, really the releasing of forecasts is as much the sort of act as comparison with other units within the city of London itself like Stock Brokers, you have the London Business School, you have various other banks, National Westminster do so, Lloyds Bank do so ... essentially in terms of ...compare ourselves with these other units who are involved in forecasting... so we can say well this is our scenario for inflation, unemployment, and various factors of demand over the next year, two years, five years ..."
(my emphasis).
(Vol.II, p.146)

Therefore, in an example such as (16), one may argue that the reporting writer, Barclays Bank, sets out, in proposition (21a) how the view of their institution of the future course for the item under

consideration (inflation) compares with that of another institution, the British Government Department of Treasury, which they regard highly.

- (16) (21a) Inflation this year should move close to the Treasury's own forecast of 4.5% (21b) and even if the prospect is, on balance, for some modest pick up next year, (21c) an inflation rate of not much more than 5% would still represent a real achievement at this stage of the cycle (21d) and be consistent with a declining trend. (22) Moreover, a lower outturn would come as no real surprise on current conditions. (Text 89)

Example (17), on the other hand, illustrates how the reporting writer compares, in proposition (3b) and (3c), his own predictions with those of other forecasters.

- (17) (3a) Recent evidence supports the view (3b) that inflationary pressures will remain subdued, (3c) with the underlying rate remaining much lower (3d) than forecasts made by most commentators at the time of the budget. (4a) Increases in seasonal food prices have already fallen to an annual rate of 11% in August from a peak of almost 30% in the spring, (4b) and seem certain to decline further in the coming months. (Text 92)

7.3.3 Author-detached Attributed Predictions

This category refers to those attributed predictions from which the reporting writer ostensibly distances himself. Specialist Informant Cathy George acknowledges the socio-functional background to this category of attributed prediction when she says:

"Much of our materials have got to come

from international institutions like the IMF and then we weigh one source of information up against another and try to arrive at a detached assessment" (Vol.II, p.138)

In the corpus, the distancing effect appears to be achieved by one of two strategies.

The writer may choose to reject the attributed prediction by casting doubts of its chances of fulfilment. In such a case, clearly, the writer may be said to distance himself from the truth value of the attributed proposition.

Consider (18) for example.

- (18) (1a) Bangladesh, (1b) which accounts for around four - fifths of world jute exports, (1a) has sustained severe damage to this season's crop (1c) after a period of drought followed by heavy flooding. (2a) A recent government crop estimate of 4.5 million bales could prove rather optimistic, (2b) but even such a level of production would be insufficient to meet normal export commitments. (Text 77)

In this example, the reporting writer can be seen to explicitly express his reservations, partly within the attribution proposition (2a) which contains the author's evaluation of the Bangladeshi estimate, signalled by the word optimistic, and partly in proposition (2b) which contains the author's assesement of the hypothetical outcome, assuming it were correct.

It is possible to speculate that, despite being an official source, the referent is not viewed as a credible source by the reporting body because it is a government institution from the Third World and that

such a source is therefore unlikely to be highly regarded. This argument, however, does not rule out the fact that non-Third World sources are sometimes unreliable.

Consider, as an example, the following case in which the referent can be seen as highly regarded by the reporting writer and yet whose predictions are discounted. The example is (19).

- (19) (1a) The pace of recovery can be set in context to a set of forecasts (1b) released by the EEC early in October. (2a) The Commission believes (2b) that world output and apparent consumption of crude steel will increase by an average of only 1.2 per cent a year between 1980 and 1985, (2c) compared with over 2 per cent between 1975 and 1980. (3a) The significant thing about the forecast, however, is not the slowing down over five years, (3b) but the rapid rise of recovery required in 1983 - 85 (3c) if the forecast is to be realised. (4a) World production is predicted at 759.5 mn tons, (4b) whereas it is likely to be something in the order of 650 mn in 1982. (5a) Output growth will therefore have to average over 5.4 per cent a year in 1983 - 85 (5b) to justify the EEC forecast. (6) This seems too high. (7a) Even if one scales down the total along with an apparently optimistic subtotal for the communistic countries, (7b) and accepts growth rates for the production and consumption of the developing countries (7c) which leave the areas net imports (7d) broadly unchanged in volume - (7e) ie its production is rising faster than its consumption - (7f) the EEC's 1985 figures appear to leave the industrialised countries with growth rates between 1982 and 1985 (7g) averaging 7.1 per cent a year. (WCO/83, p.41)

In this example, the predictions expressed in propositions (2a) to (2c) on the one hand and in

propositions (4a) and (4b) on the other, and which are attributed to the EEC are later on evaluated by the reporting writer, in proposition (5a) onwards, by casting doubts, in proposition (6) especially, on the truth value of the EEC predictions. They challenge the necessary conditions for the fulfilment of the prediction.

The alternative strategy used by reporting writers in order to detach themselves is to challenge the ground upon which an attributed prediction is constructed before eventually putting their own view forward. This strategy can be seen as a way of making the writer's own prediction more acceptable to the reader.

An example is (20):

- (20) (1a) Most forecasters still expect real GNP growth to slow down so markedly (1b) that for 1984 as a whole it will be only slightly higher (1c) than was forecast at the beginning of the year; (1d) and that inflation will be kept in check without recourse to a sharp increase in interest rates, (1e) although they will continue rising gently. (2a) We believe (2b) that the strength of the recovery is underestimated, (2c) and have raised our forecast to 6 per cent for the current year, (2d) while retaining .3 per cent for 1985. (3a) As this implies higher pressure of demand (3b) we also expect a slightly higher rate of consumer price inflation this year and next (5.5 per cent and 6.5 per cent respectively) (3c) than we were predicting in February.
- (NIER - 108/84, p.30)

This example illustrates a rhetorical ordering in which the attributed prediction, expounded in propositions (1a) to (1d) is rejected by the reporting

writer who challenges, in proposition (2b) especially, the ground upon which the external prediction is constructed prior to proposing an alternative one in propositions (2c) onwards.

However, the order:

Attributed Prediction

!

!-----> Author Evaluation

!

!-----> Author's own Prediction

is not obligatory since there are cases in which the order is different, as shown in example (21) below.

- (21) (1a) Thus in a normal year, one would not expect dramatic change on the demand side. (2) And in the generally depressed market conditions of the last three years consumption has been virtually constant - in the 65.5-66.5 mn range. (3a) It would be surprising (3b) to see any movement beyond either side of that band in the coming year. (4) Cotton Outlook has ventured a forecast of 66.4 mn bales for 1982/83, as against 65.4 mn in 1981/82. (5a) It needs to be remembered (5b) that out of total consumption, approximately 28.5 mn bales are utilised in Communist economies and another 6 mn in India, economies (5c) whose textiles industries are largely cotton based (5d) and, to a higher degree, insulated from international transmission of boom and slump between the market economies. (6a) Of total world consumption of cotton, under 30 per cent is directly accounted by the textile industries in the main industrialised market economies (6b) or those linked to them: (6c) 5.5 mn bales in Western Europe, 5.5 mn in North America and 6.5 mn in Japan and the main textile exporting NICs (in 1981/82).

(WCO/83, Cotton, p.71)

In this example, the writer firstly expresses his own prediction in propositions (1a) to (3b), then

resorts to the attributed prediction, expounded in proposition (4) and finally challenges the attributed prediction in propositions (5a) onwards. Additionally, the lexical item ventured chosen by the writer in reporting the external source's forecast is a further indication of the writer's detachment from it in that it suggests that the attributed prediction was a gamble.

There is, in the corpus, one isolated instance in which all three main strategies of authorial commitment to or detachment from attributed predictions discussed in this chapter come into play and overlap. The example is this:

- (22) (1a) While world trade in steel products will continue to be distorted in 1983 by restrictions on it, (1b) so that US production will rise by more than the world average and EEC production by less, (1c) there seems to be fairly wide agreement (1d) that globally real consumption is unlikely to make much of a recovery after the slump of 1982. (2) In the first nine months of 1982, the output of crude steel by IISI members, at 300,2 mn tons was 12.1 per cent lower than in the same period of 1981. (3a) Led by the USA, with a 38.3 per cent fall, (3b) the OECD countries produced 14.3 per cent less; (3c) Yugoslavia and South Africa recorded modest falls; (3d) while the third world producers managed a 5.5 per cent increase. (4a) The OECD thinks (4b) that its members will fare worse than this for the year as a whole, with a drop of 16 per cent (4c) compared with 1981. (5a) It is also reported (5b) as predicting (5a) that its consumption will be down by 16 per cent also. (6a) Mr Lenhard Holschuh, (6b) Secretary General of the IISI (6a) had forecast a few weeks earlier (6c) that apparent consumption for the non - Communist world as a whole would fall by 8 per cent in 1982. (7a) Some of the

discrepancy between the predicted rates of decline can be accounted for by the inclusion of the developing countries in the IISI total: (7b) their consumption could be up by about 3 per cent, (7c) so that the non-communist total would fall by less than the OECD figure. (8a) Again, the IISI's forecast might well have been gloomier (8b) had it been made at the same time as the OECD's, (8c) since the steel industry news in the interim has been depressing. (WCO/83, Steel, p.40)

In this example the reporting writer refers to a number of attributed predictions which are, expressed in propositions (1c) to (1d), (4a) to (4c), (5a) to (5c) and (6a) to (6c).

It is possible to argue that the attributed prediction found in propositions (1c) to (1d) appears to be used by the writer to back up his own prediction which in this case corresponds to the attributed one. The attribution aspect of the prediction seems to be expounded by proposition (1c) especially, in which the author is showing the extent of the consensus amongst forecasters, with regard to their assessment of the likely future course of the item under discussion, namely steel consumption.

In propositions (4a) to (6c), however, the writer compares predictions attributed to two distinct sources, the OECD and the IISI, though it is interesting to note that proposition (5a), in particular, appears to imply that the attributee may not be the immediate source from which the attributed prediction expressed in propositions (5b) and (5c) is taken.

As a matter of fact, the implicature for the assertion X predicts p is quite different from X is reported as predicting p, in that in the former X is both the attributee and the source, while it stands for the attributee only in the latter case.

To return to example (22), the author's own evaluation is found to be adjacent to this group of attributed predictions, being expressed in proposition (7a) onwards. The central thesis of the author's evaluation argues against the prediction made by the IISI from which the reporting writer wishes to distance himself.

On balance, then, example (22) illustrates a rather complex use of attributed predictions in which the reporting writer resorts to them on the one hand for support while showing the weaknesses in the basis of the attributed predictions on the other.

7.4 Linguistic Realisation

Linguists are generally agreed that attribution in discourse is signalled by a set of identifiable contextual features and lexical items. Prince et al (op.cit) argue that attribution is marked by such expressions as according to, while (Hoey, op.cit) contends that attribution is marked by agent-bound and have-ed form sentences and by such verbs as develop, construct, build, come up with, invent, introduce. Tadros, (op.cit) maintains that attribution is marked by

direct or indirect speech, reporting adjuncts (e.g. in X's view) and proposes a comprehensive list of verbs which signal attribution/reporting, many of which overlap with those proposed by Hoey as also by Al Shabab and Bloor. However, it is interesting to note that the linguistic context in which these signals are found is different from that of the present analysis and therefore many of them such as the verbs said, stated, claimed or argued etc. are not found in the corpus under analysis.

It is equally difficult to always accept some typical ones such as according to at face value, because not only have we seen in the previous sections that the expression according to does not always imply "according to X, not to me" but also that the expression may occur in contexts which do not denote attribution. Such a context is illustrated in example (23).

- (23) (1a) It follows mechanically from the perpetual inventory method, (1b) in which forecasts of gross investment are added to estimates of the capital stock (1c) and scrapping is subtracted according to assumptions about normal service lives of assets. (OECD/84, p.54)

The expression according to in this quotation appears to bear the meaning of in line with or else, in accordance with rather than should we believe in X's view, which would suggest an attribution. Moreover, even in cases where the force of attribution is maintained, the qualified assertion is not necessarily an economic

prediction. Consider the following example.

- (24) (11a) With all the Indian mills now losing money - (11b) a total of Rs 120mn per month, (11c) according to one source - (11d) the government announced a number of measures (11e) designed to relieve the industry 's present policies. (Text 63)

Here, although proposition (11b) is attributed to an unnamed external source as evidenced by proposition (11c) which in turn is signalled by the expression according to , it is obvious that it cannot be counted as an attributed prediction for the simple reason that the attributed proposition is not portraying a future event. Hence the need to for us to establish recognition criteria and signals that may be said to govern the use of attributed predictions in the data at hand.

7.4.1 Criteria for recognition

The following criteria are suggested as identifying an attributed prediction.

1. The referent of an attributed prediction must be a specified source.
2. Its propositional content must be an outstanding not an obsolete prediction.
3. The attributed prediction must be realised in a reporting structure, expounded by the following signals:
 - a. Name of a person, an organisation or a publication
 - b. Futurate expression
 - c. Direct or Indirect Speech.

7.4.2 Nature of Specific Source

Reference to a specified source is an important criterion of attributed predictions. The mention of the source must be physically present with the proposition or set of propositions in which the attributed prediction is realised. Richardson (1980:72) identifies the source of an attributed proposition (or quotation) as being "a specific individual, group or text", but in the present corpus, we further note that the status of the specific individual, group or text can be particularly important. We have therefore chosen to make a distinction between **official** and **private** sources.

Official sources identified in the data include official organisations or institutions, organisations or government officials and official documents while the private sources include private individual forecasters and private publications.

We shall consider each of these types of external source in turn.

1. Official Organisations or Institutions

The external source referred to in this category may be:

- a) a Government Department: such as the Treasury, USP¹, the Department of Employment etc. as in example (5);
- b) A National Institution such as the CBI, SLN, AWC etc. as in example (14);
- c) An International Organisation like the FAO, EEC,

OECD, IEA, ITA, ALUMAX, IRSG etc. as in example (19).

It is worth noting that in the corpus, these organisations are usually designated by their acronyms, whose meanings are sometimes spelled out at their first occurrence in the text, or if they are assumed by the writer not to be widely known by the intended readership. As Cathy George commented:

" when we abbreviate in the first place we should spell it out before assuming that everybody knows like LDCs ... I think that over the years as people got very used to the phrase LDC they wouldn't be reading the reports if you didn't know they were 'Less Developed Countries' ... I think we probably stopped spelling out the IMF because it is assumed that people would know ."
(Vol.II, p.143/4)

2. Organisation or Government Officials

This type of external source refers to individuals who make predictions on behalf of a government, a national or an international organisation.

In the corpus, these individuals are designated mostly by their official title, such as the Chancellor, the Minister of Finance etc. as in example (3) and occasionally by their name and title, for example Mr. Lenhard Holschuh, Secretary General of the IISI, found in example 22. The sequence of Name + Title is, however, unusual. Precedence is perhaps given to title rather than name since the right to speak for an organisation is inherent in the role designated by the title.

3. Official Documents

This category consists of publications by government or inter-governmental organisations. They are generally reports and surveys referred to in the corpus either under the generic name of 'forecasts' or 'projections' such as official forecasts, secretariat forecasts etc. as in example (6), or by giving the name of the publication, such as the Annual Economic Report of the Federal Government (Germany), the Budget etc. An example is (25) in which the American Government's budget report for the financial year 1985 is the referent.

- (25) (1a) The United States FY 1985 budget foresees a federal deficit of \$184 billion in 1984 (on a calendar year, national account basis), (1b) followed by a fall to \$28 billion in 1985 (1c) if proposed economies of \$28 billion are implemented.
(OECD/84, p.24)

Occasionally, both the name of an organisation and its publication are provided when referring to an external source. In such cases, both the Organisation and the Publication are co-referential.

For example (26):

- (26) (5a) In its latest forecasts, the FAO is now predicting (5b) that production will drop from 3.426 mn tons in 1980/81 (5c) excluding Asian CPEs (5b) and 3.470 mn tons in 1980/81 to around 3.285 mn tons, (5e) some 4 per cent down on the preceding year.
(Text 63)

But here again, as in example (22), there seems to be a distinction drawn between the attributee (the FAO)

and the source (the FAO's latest forecasts).

4. Private individual forecasters

Reference is made here to persons other than government or organisation officials. It is interesting to see that in the corpus, private forecasters are not designated by their personal names. This is perhaps due to the fact that professional economic forecasters always write their reports and surveys on behalf of their employers who bear the responsibility for the forecasts rather than they themselves.

As Cathy George recognises, as far as Barclays Bank reports and surveys are concerned

"the overall responsibility for their contents is obviously the Head of Department ... well the overall responsibility for the contents of any of our publications goes in chain up to the Head of Department and after that to Barclays Group Economic Adviser who's Professor Rose." (Vol.II, p.138)

Consequently, the terms applied to such private forecasters noticed in the data are mainly inclusive. They include such generic forms as: forecasters, private forecasters, many analysts, most commentators or most forecasters etc.

An illustration is provided in example (20) quoted before, in which the expression most forecasters in proposition (1a) is the referent. A further example is provided by (27) in which the predictions are partly attributed to most private forecasters in proposition

(32b).

- (27) (32a) Official forecasts are predicting a rate of 4.5% by the end of the year (32b) but most private forecasters are expecting a somewhat higher figure. (Text 83)

5. Private publications

This category refers to special reports and surveys published by private forecasting bodies. Like their official counterparts, private publications may also be designated either by their generic names such as forecasts, projections or assessments. An example is the expression the most optimistic forecasts found in example (13), proposition (3a).

Another reference strategy is to give the name of the publication per se, such as Cotton Outlook, INSEE survey, the quarterly EIU's Motor Business. An example is the referent: the latest INSEE survey found in proposition (1a) of example (28) below.

- (28) (1a) The latest INSEE survey predicts a volume increase of 11 per cent in industrial investment (after three years of steep decline), (1b) which would more than offset the fall expected in public sector investment. (NIER-108/84, p.32)

At times, however, it seems difficult to tell from the context whether a given prediction is attributed to an official or to a private source. This is the difficulty found in the following example.

- (29) (1a) A string of current account deficits (1b) like those currently recorded by the United States (1a) significantly change the international investment position of a country and its net receipts of income on investment. (2a) According to the

projections here, (2b) over the four -
year period ending in 1985, (2c) the
United States will have recorded a
cumulative deficit on current account of
the order of \$250 billions. (OECD/84,
p.68)

The point in making a distinction between official
and private sources is because their predictions do not
seem to have the same weight in the relevant
professional setting. Also, official forecasts such as
the Budget Report may serve as a guide for private
bodies in making predictions about future government
fiscal policies affecting such economic variables as
inflation, interest rates and the like.

To quote Roger Miller:

" a Chancellor's statement for example is
interpreted most minutely to find some
ways of interpreting government policies,
in the sense... what is the government
going to do if such and such thing
happens. From that, you'll be able to find
out that forecasting eventually changes
accordingly... Governments have
considerable ability to change Interest
Rates or they can act to force them up,
they can act to keep them down."
(Vol.II, p.151)

Having said that, it could be argued that a
prediction attributed to an official source is likely to
be more credible than one emanating from a private
source. One of the ways of gathering textual evidence
for such credibility is to measure the extent to which
predictions attributed to each of the two types of
external source are challenged, contradicted or modified
in their immediate linguistic environment, though our
foregoing discussion about author detached forecasts

suggests that both official and private sources are susceptible to negative evaluation.

A frequency count of attributed predictions in the operational corpus, reported in **Table 10** shows that that there are 35 predictions attributed to official sources against only 11 to private sources. It also shows that nearly 14% of official forecasts are later on negatively evaluated by the writer in one way or another compared with 27% of private ones.

These results may imply that there is a greater likelihood for the sequence Attribution - Evaluation to be applicable to forecasts attributed to private sources rather than to official ones, though firm proof would require a larger sample.

Table 10: Distribution of Attributed Predictions

Sequence \ type	Official sources		Private sources		Total
	Instances	Proportion	Instances	Proportion	Instances
Attribution - Evaluation	5	14%	3	27%	8
Attribution only	30	86%	8	73%	38
Total	35	100%	11	100%	46

7.4.3. Characteristic lexical items

The external source alone is not sufficient for the realisation of an attributed prediction. It must be coupled with lexical items of a reporting but also a predictive force. These lexical items are of three main types: verbs, adjuncts and modals.

Verbs are naturally found in the reporting clause and used together with futurate modals in the reported clause, generally when the verb used in the reporting clause is not predictive. The verbs found in the corpus used by corporate writers for this purpose fall into the following semantic groups:

a) Predictive verbs

anticipate
expect
forecast
foresee
see

b) Opinion verbs

agree
believe
comment
think

c) Judgement verbs

estimate

d) Reporting verbs

report

The list excludes the following factive verbs which, although collocating with external sources and futurate modals, denote the writer's own interpretation. These verbs are:

imply
indicate
point to
presage
show
suggest

The following examples may be contrasted to

illustrate why the last category of verbs do not form part of the signals.

- (30) (1a) Forecasters are agreed, (1b) on the basis of preliminary market intelligence, (1c) that production, worldwide, will fall by 5 to 5.5 mn bales.
(WCO/83, Cotton, p.73)

versus

- (31) (1a) Consequently, current USDA forecasts suggest (1b) that by the end of the 1984/5 season the stock:consumption ratio for both coarse grains and soyabeans will improve significantly from the previous season's low points (1c) -possibly rising to 11% and 20% respectively- (1d) while the ratio for wheat should remain at current high levels. (CSF, 26/7/84, p.2)

The difference between examples (30) and (31) is that the verb suggest in example (31), proposition (1a) means that USDA forecasts have led the writer to believe that the stock:consumption ratio for both of the products will improve in the forecast period. In other words, the prediction in (31) is the writer's own deduction or interpretation on the basis of forecasts released by the USDA, which may not necessarily be about the stock:consumption ratio. The verb suggest in this example would have the same meaning as imply or indicate rather than predict, expect or anticipate.

The most popular adjunct used in attributed predictions is according to. The possessive case can also be included in this group.

The futurate modal will in the reported clause on the other hand is in the present tense. It is however

difficult to state whether the form the modal takes is the result of the reporting effect or whether it is actually the form used by the attributee. This difficulty can be seen by further reflecting on some of the examples quoted above.

In example (26) for instance, it is clear that the form of the modal correlates with the tense used in the reporting clause and that what the specific source actually used was will.

But this simple, traditional grammar rule seems to be jeopardised when we contrast examples (32) and (33).

- (32) (1a) A number of predictions have been made recently, (1b) and one of the most notable is that produced by the International Rubber Group. (2a) This organisation has predicted (2b) that a demand growth of 6 per cent for 1983 will occur. (3a) One of the crucial elements in this forecast is the sharp revival in activity in North America, (3b) but, at the moment this looks very unlikely (3c) and the predictions made by the International Rubber Study Group appear to be far too optimistic in the context of the likely growth in production in the motor industry and other sectors. (WCO/83, Rubber, p.93)

Let us take the author's evaluation found in this example in proposition (3a) onwards first, since it allows us to assign the category to which the attributed prediction expressed in propositions (2a) and (2b) belongs. We see that the present perfect tense is used in the reporting clause of the attributed prediction (proposition (2a)) and the modal form will, in the reported clause (proposition 2b) is in the simple

present tense.

Assuming, as contended by Sager et al (op.cit), that the present perfect tense (e.g has predicted in example 32) is a semantic equivalent of the simple present tense (e.g is predicting in example (26)), one may be tempted to argue that there is a parallel between examples (32) and (26). The reason for this observation is that there appears to be a tense correlation in both examples between the verbs in the reporting and the reported clauses.

Therefore, one would expect the consistency noticed between the verbs/modal in both clauses of the reporting structure to be maintained.

However, (33) provides a counter example.

- (33) (1a) The AWC chairman anticipates (1b) that the corporation will have to play the rigorous role (1c) supporting the market in the short term (1d) and has predicted (1e) that the Australian stockpile could well reach a million or more bales by Christmas (1f) -double the season's opening level- (1g) and that a large proportion could come from the coarse and of the market. (WCO/83, Wool,p.80)

In this example, we find that although the simple present tense has been used in one of the verbs of the reporting clauses (see has predicted in proposition (1d)), the modal could used in the reported clauses (see propositions (1e) and (1g)) is not in the same tense, suggesting that the form of the modal in attributed predictions is optional .

The modal form occurs in free variation and

therefore may not be significant in identifying an outstanding prediction. The form of the verb in the reporting clause on the other hand seems more significant in that it must be in the present tense, irrespective of the form the modal in the reported clause takes (i.e will, would, can, could, may, might etc).

7.4.4 Syntactic patterns

Taking for granted the presence of a specified source which may be external or internal to the reporting institution, attributed predictions appear to be realised in clearly identifiable syntactic patterns. These are:

I. Source with THAT - Constructions

1. Source as subject of a declarative statement, as in example (19) quoted earlier, propositions (2a) to (2c).

2. a) Source as modifier of a noun. An example is (34) below, propositions (20a) onwards.

(34) (19a) The ferro price quotation is, (19b) much more than the ore price, (19a) a reflection of the current tribulations of the steel industry worldwide. (20a) Given the OECD estimate (20b) that its members' steel production will be 16 per cent lower in 1982 than in 1981- (20c) with non Communist world production down a few points less (20d) because of the growth of developing countries' steel industries- (20e) manganese consumption will have fallen by roughly the same amount, (20f) if anything marginally more, (20g) since there is no reason to suppose (20h) that

the slow decline in manganese use per ton of steel has come to a halt. (Text 60)

2b) Source as a possessive. An example is (35), proposition (2a) onwards.

- (35) (1a) The EIU's quarterly Motor Business regularly publishes forecasts of production of passenger cars and commercial vehicles in eight Western countries (1b) -those for which GDP forecasts have been made above and Spain. (2a) Its latest view is (2b) that they will produce 23.4 mn in 1983, (2c) a gain of 5.3 per cent over this year. (WCO/83, The World Picture, p.1)

3. Source as object of by-agent phrase in a passive construction with extraposition. An example is (15) quoted earlier, especially propositions (5a) to (5c).

II. Source with To-infinitive constructions

1. Source as by-agent phrase in a passive clause as in example (7) above, propositions (3b).

2. Source as a modifier of a verb. An example is (36) below.

- (36) (6a) The Exchequer borrowing is officially projected to remain broadly unchanged in nominal terms in 1984, (6b) amounting to just under 13 per cent of GNP, down from about 14 per cent in 1983. (Text 44)

In this case, it can also be said that the source is implied by the word officially.

III. Source with viewpoint adjunct.

This is illustrated in example (5), especially

proposition (1a) in which we read According to the USDA...The viewpoint adjunct according to enjoys a peculiar syntactic mobility in that it can occur in initial position in relation to the prediction, as in example (5), or occur in the middle of the predictive clause. Such a position is illustrated in example (11).

IV. Source with direct quote

This pattern is found in one instance only throughout the corpus. The example is (14), quoted earlier in which the source (the CBI) occurs with an attributed prediction in inverted commas.

Table 11: Distribution of Attributed predictions by syntactic patterns

Syntactic pattern	Source + THAT Construction	Source + TO - infinitive	Adjunct + Source	Source + Direct Quote
Frequency				
Instances	26	3	16	1
Proportion	56.5%	6.5%	35%	2%

Rather than offer statements about the significance of the frequency of occurrence of these syntactic patterns, we argue that they simply represent the different syntactic choices writers make in order to attribute forecasts to specific sources. These choices may be illustrated further by considering the different

stylistic variations writers have employed in the corpus to put forward an attributed prediction using the lexeme estimate in the reporting clause.

1. Source with THAT - Construction, as in example (37).

(37) (1a) The US Department of Agriculture estimates (1b) that world coarse grain production will increase by 14% and soyabeans by 17%. (IES, 6/9/84 p.3)

2. Source with TO - infinitive construction, as in example (7).

3. Adjunct with Source, as in example (38).

(38) (1a) According to OECD estimates, (1b) the General Government net borrowing may decrease from 3.5% per cent of mininal GNP in 1982 to 2.25 per cent in 1984 and 1.5 per cent in 1985. (OECD/84, p.82)

Although the corpus offers no examples illustrating the remaining pattern IV, there is good reason to believe that, the potential for estimate to be found in direct quote sentences does exist.

Chapter eight: Conclusion

8.1 Summary of the findings of the Research

The aim of the present research project has been to carry out a discourse analysis of texts drawn from economic reports and surveys which are published in English by corporate bodies, and in which forecasting forms a major linguistic aspect. The analysis centred on two broad areas:

First, at the macro-level of text structure, a description has been provided of the schematic structure of a hundred texts surveying national economies or market and economic sectors, coupled with a discussion of the patterns of realisation of the schematic categories.

The second area concentrated on the micro-level of strategies employed by economic report writers to modulate the propositions which are expounded in the form of economic predictions.

The analysis, which has been supported by views of Specialist Informants, has revealed the following.

I. Forecasting, in the sector review section of economic reports and surveys, is a reasoned argument projecting an identifiable schematic structure. The Forecasting schema, as manifested in the corpus, consists of the Reporting and Predicting episodes, which in turn can be subdivided into two normally

required moves and one optional move each. The sum total of these fundamental moves makes up the basic schema. The Forecasting schema can be said to be extended when optional moves are also made use of.

- Describing Previous Trends (DPT), is a normally required move forming part of the Reporting episode and designates that part of the text in which the economic forecaster gives a factual account of what has been the general direction of economic trends over a specified period of recently elapsed time. The writer may choose to describe previous trends by giving an account which depicts a historical evolution of trends in the market or economic sector over specific time periods. Alternatively, he may opt for a trends description which follows on from a previously published forecast that has already materialised in the real world as predicted. The DPT move is marked by verbs of trends description, state and motion verbs, used predominantly in the past tense.

- Giving Reasons for Previous Trends, here categorised as REASON is the other normally required move of the Reporting Episode. It refers to that part of the text in which the economic forecaster accounts for the trends described. This is the part that reflects the writer's own opinions as he attempts to establish the causes triggering off the trend in the market or economic sector under survey. The REASON move is signalled by subordinators, connectors and vocabulary

three items of causal relation.

- Revising Previous Forecast or REVISION is the optional move of the Reporting episode. It is essentially an alternative to the DPT move and applies when the writer wishes to begin his forecast by reappraising the fulfilment or otherwise of a previously published forecast. Characteristic signals of the move are the lexical items of REVISION.

- Setting the Basis for Predicting or BASIS is a normally required move forming part of the Predicting Episode , which refers to that part of the text in which the author provides the ground and/or evidence upon which the prediction of future trends and indeed the forecast as a whole is based. It provides an assessment of the relevance of underlying economic trends to the forecast. The move is characterised by a mixture of factual arguments and the writer's own assumptions, consisting of hypotheses and minor predictions. Lexical items of BASIS and features of modality signal the move.

- Predicting Future Trends (PFT) is the other always required move in the Predicting Episode. It is the defining move of the forecast schema and refers to that part of the text in which the future scenario of the market or economic sector under survey is envisaged. The move consists of the central prediction, which is subordinated to the topic of the text, and is signalled by lexical items of future intent and by features of

modality.

- Assessing risks to the Prediction or RISK is the optional move of the Predicting episode. It amounts to an alternative scenario viewed as likely to impede the materialisation of the prediction made by the writer. The RISK move consists of a prediction, held to be unwelcome by the writer and a conditional clause, which acts as a mini-basis to the RISK prediction. The move is additionally found to be adjacent to the major prediction, and is signalled by lexical items of RISK.

II. The schematic structure of Economics forecasting texts falls into three main patterns of realisation: Canonical Order, Embedding and Juxtaposition.

- The canonical order of the episodes refers to the positioning of the Reporting Episode prior to the Predicting Episode. The canonical order of the normally-required moves is subordinated to that of the episode, while in the extended form of the schema, the REVISION move is found at the beginning of text and the RISK move at the end. Variations in the canonical order of the moves have been noted under such patterns as move inversion, merged moves and discrete moves.

- Embedding is a type of realisation in which one schematic category is embodied within another. Schema-embedding underlies the structure of texts in which more than one topic is developed in such a way that one topic, reflecting the components of the basic schema, is

dealt with as a component of another major topic. Move-embedding on the other hand is essentially syntactic and suggests a physical inclusion of one move within another. No embedding, however, has been noted at the level of episodes.

- Juxtaposition applies only at the schema level and underlies the structure of texts in which more than one topic is developed entirely one after another.

III. - Economic forecasters tend to modulate the force of their predictions by specifying conditions, by hedging and by attribution. Each of these strategies indicates some degree of authorial commitment to or detachment from the predictions being proposed.

- Conditions are used to modulate the predictions for the purposes of Hypothesizing, Disclaiming, Reinforcing or Revoking a scenario as a likely development of future economic trends, by resorting respectively to the Unmarked Conditional, the Absolute Conditional, the Reinforcing Conditional and the Antithetical Conditional. Each of these types of conditional is signalled by different explicit, or sometimes implicit forms.

- Proposition modulation by Hedging is employed for the purposes of rating the chances of fulfilment of predictions, asserting authors' own judgement and reformulating the propositional content of a prediction. Hedges used to rate the likelihood of a prediction

fulfilment are realised either intra-propositionally or peri-propositionally, while reformulating hedges consistently occur at the end of the proposition or the lexical item they negate.

Finally, the modulation of propositions by attribution is a strategy employed by corporate authors to endorse or reject the predictions released by specified sources or to use them to rhetorically-support their own. The extent to which an author evaluation follows or does not follow an attributed prediction is a determining factor in assigning the category of Attribution. Author-endorsed attributed predictions have no evaluation. Author-detached attributed predictions are negatively evaluated by the author's own prediction while rhetorical support attributed predictions are positively evaluated by the author's own prediction. However, unlike predictions modulated by specifying conditions and by hedging, no correlation has been observed between the linguistic forms of realisation and the functional categories of predictions modulated by attribution.

8.2 Implications for Genre-Analysis in ESP

The findings of the present research have relevance for studies of Genre-Analysis in ESP.

One evident contribution of the findings of the present analysis to genre-related studies in ESP is that they add to existing models which account for the

structure of a type of specialist texts, some of which have been surveyed in the thesis.

The categories of schematic structure of forecasting texts outlined here suggest a hierarchy of levels, within which the move is both the central and the minimal functional unit.

The patterns of realisation of the schematic structure revealed in the present analysis, namely the delineation of optional from normally required moves and the ordering of schematic categories into Canonical Order, Embedding and Juxtaposition appear to make the model interesting from the point of view of the study of text structure. For one thing, they compensate for the lack of suggestion concerning the ordering of schematic categories in previous models accounting for the structure of forecasting texts (e.g. Zuck and Zuck, 1984a). For another, they perhaps offer a solution to the criticism of consistency or lack of it in the order of moves, otherwise made of this method for analyzing corpora from a genre. (See for example Crookes, Op.Cit; and various replications of Swales's seminal model).

It is nevertheless true that the linguistic analysis reported in this thesis is typical of a genre-analysis in so far as the approach adopted for studying the schematic structure and the strategies of modulating economic predictions encompasses structural, functional and formal properties of the texts analysed. Indeed, the

strategies of modulation have been studied in relation to the schematic structure and each functional category of prediction has been found to be marked by identifiable linguistic exponents. This seems to confirm the often stated argument in Genre-Analysis of a possible correlation between structure, function and form. However, the fact that this linkage has failed to be sustained within functional types of predictions modulated by attribution suggests that structure, function and form linkages are not always watertight and that they may be subordinated to macro- and micro-functional categories. This failure possibly tells us also that, although attribution is evidently an authorial strategy of modulating predictions, it may well also be a rhetorical device which is more significant in texts reflecting "secondary accounts", as is the case for news texts for example (Richardson, Op.Cit; Al Shabbab, Op.Cit; van Dijk, 1988).

Although genre-oriented, however, the present analysis offers another initial response to calls for an approach to genre-analysis that combines both work in "move-analysis" with that in "clause-relations" (Dudley-Evans, 1987:5). While the "move-analysis" approach underlies the analysis of the schematic structure of Economics forecasting texts outlined here, insights from the Grammar of Clause Relations (Winter, 1982; Hoey, 1983) have contributed to identifying signalling elements of moves (see REASON and BASIS moves) and also to working

out some of the strategies for modulating predictions (see for example, author evaluation as a criterion for distinguishing the categories of prediction modulated by attribution).

A further point of relevance of the findings of the present analysis to genre-analysis would seem to be that they identify some of the type of linguistic conventions that are mutually understood by members of the discourse community involved in the production and consumption of Economics forecasting texts. This is with regard to the structure and strategies of modulating the propositions expounded as economic predictions.

Schema and **genre** are both abstract linguistic constructs, the boundaries of which are difficult to delimit. However, it is possible to argue in the light of the findings of the present analysis, that the schema is one aspect of the structure within a particular genre and is therefore one of the means by which a genre is identified.

Label is another recognized element of a genre (Swales, 1986c) but the categories of the schematic structure outlined here suggest that there may be a defining category of the structure that reflects the genre label. For the sake of argument, the genre of forecasting text may be compared to the genre of Reprint Requests in which normally required moves include information which is additional to the request per se.

Obviously, the label may be overt or covert. Although the sources of the texts considered go under such names as report, survey and outlook, they are referred to by economists as forecasts, when alluding to their contents. A superordinate term such as forecasting report would be therefore reasonable in order to designate these sources of forecasting texts, given that not all economic reports are forecasts.

The linguistic conventions for modulating predictions are another feature of forecasting texts as a genre. The emphasis is not so much on Economics, the field from which the corpus analysed is exemplified but rather on forecasting. Not linguistic so that as far as the linguistic realisations are concerned, they are likely to be applicable to any forecasting text irrespective of Field. Therefore, although the present analysis is not a contrastive study, the finding that authors modulate their economic predictions by specifying conditions, by hedging and by attribution might well also be applicable to predictions that are not necessarily economic.

The present analysis also has implications for genre-specific studies of variation in Specialist Discourse in so far as it has exposed differences within texts pertaining to the same discipline (Economics) and to the same genre (Forecasting).

Variations have been noted in the categories of the schematic structure of Economics forecasting texts,

in the forms of realisation of the structure and in authorial strategies of modulating predictions, suggesting that the analysis has pointed to features likely to be taken as criteria for accounting for intra-genre variation in Specialist Discourse.

This is particularly important when one considers the fact that recent studies have been interested in inter-genre variations, such as the study of science texts and their popularised versions (Adams-Smith, op.Cit; Myers, 1988).

Lastly, the analysis has yielded taxonomic information with regard to a type of texts, hitherto unexplored, which it is hoped will be useful for any Discourse Analysis enterprise geared towards the formulation of a theory and methods of genre analysis in the field of English for Specific Purposes.

8.3 Suggestions for future work

Potential areas of further research in connection with the findings of the present analysis about the language of forecasting in English are both of pedagogical and theoretical interest.

One pedagogical application might be to test how the knowledge of the schematic structure enhances or impedes the comprehension of forecasting texts by students of Economics whose first language is other than English. Such a task would be in line with recent

research on the effect of schemata on text comprehension and writing processes.

Testing the influence of the knowledge of the schematic structure of Economics Forecasting texts is made more feasible by current thinking that the structure to be tested can be an established rhetorical structure (Kintsch and Yarborough, *op. cit*; Carrell, 1987). Equally it could be a newly uncovered genre-related text structure which has either been already validated (St John, 1987) or has yet to be validated (Hewings & Henderson, *op. cit*).

Clearly, the schematic structure proposed in the present analysis belongs to the last category, and one way of validating the model could be to seek to replicate the analysis on another corpus of forecasting texts. Such a replicated study could take the model outlined in the thesis as a starting hypothesis to be subsequently confirmed or improved.

Another commendable pedagogical exercise could be the devising of genre-based materials for the teaching of the identification of the degree of author commitment in Economics forecasting texts.

Although we have shown that intra-genre variations exist both within the patterns of realisation of the schematic structure of the texts analysed here and in the strategies of modulating economic predictions, we do not yet know the extent to which these variations may be

indexical of house style, given the fact that the corpus analysed has been drawn from a variety of sources, each identified with different institutions.

It would therefore be of further interest if research were to be geared towards assessing structural, functional and formal elements of texts pertaining to a genre as criteria for accounting for house style variation in genre-analysis. It is particularly important to consider structural and formal aspects because style is usually accounted for in terms of surface linguistic features alone.

Because we have been discussing variation, a further related area of research into the language of forecasting could be to contribute to the burgeoning and currently fashionable area of "Contrastive genre-analysis". Here, structural, functional and formal aspects of Economics forecasting texts from professional sources could be contrasted with those of their popularised versions in magazines and newspapers. Research on inter-genre variation is ongoing but this seems so far to have privileged the Research Article in science as contrasted with popular science texts (Adams-Smith, op.cit; Myers, op.cit; Nwogu, in prep.).

Another contrastive aspect might be to compare forecasting texts from the field of Economics with those from any other field involved in forecasting. Such a task would help to throw light on the extent of disciplinary variation within a genre, and in checking

the belief that, although narrow in scope, **genre**, unlike **register** (Halliday, 1978), may transcend the boundary of **field**, as a variable of text-type differentiation.

The last aspect of such contrastive study on the language of forecasting could be to compare (Economics) forecasting texts in English to those published in other languages. Such an exercise might help to establish the universality or otherwise of observations advanced in analyses such as the present one, as also of genre-analysis in general.

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